

2477

No. 11642

IN THE

United States Circuit Court of Appeals

FOR THE NINTH CIRCUIT

see vol 2476

REFRIGERATION ENGINEERING, INC., a corporation,

Appellant,

vs.

YORK CORPORATION, a corporation,

Appellee.

and

YORK CORPORATION, a corporation,

Appellant,

vs.

REFRIGERATION ENGINEERING, INC., a corporation,

Appellee.

TRANSCRIPT OF RECORD

(In Four Volumes)

VOLUME III

(Pages 753 to 1116, Inclusive)

Upon Appeals from the District Court of the United States
for the Southern District of California,
Central Division

FILED

PAUL R. DUBOIS

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(Deposition of Fred L. Trullinger)

Q13. You referred to a locker plant at Yamhill. Will you please tell us about the starting or inception of that locker plant.

A. Well, originally we learned of the locker plants that were installed here in Oregon and in Washington, particularly at Seattle. I came from Seattle down here. And it appeared to be a good business, and it had a drawing—bringing people into our store, gave us a clientele that came in all the time, so we established this locker plant in our store building at Yamhill.

Q14. Do you recall when you established the locker plant?

A. Well, we used the back room or the warehouse part of the store. We did not build a new building. We just incorporated it right in the old building.

Q16. What did you do in the way of building construction to convert the warehouse into the locker plant?

A. Well, we insulated it by putting cork on the floor six inches thick, with concrete on top two inches. That is [962] just on the floor of the warehouse. We first laid down paper, two layers of paper, followed with this cork laid in asphaltum, and then two inches of concrete on top of that. And on top of that floor we built the box, the insulated box, which is, I think, eight or ten—it possibly is ten inches in the clear inside, which we filled with Palco bark or Redwood bark ground up. The trade name is "Palco."

Q17. How many rooms were devoted to the locker?

A. Well, two rooms. One was what we called the pre-cooling room, and then the locker plant itself inside, where the people had their lockers.

(Deposition of Fred L. Trullinger)

Q18. Is the pre-cooling room sometimes referred to also as the chill room?

A. Yes, that is one of the names.

Q19. And were the two rooms adjacent, separated by a single wall? A. They were.

Q20. By whom was the construction of the locker and pre-cooler rooms made?

A. You mean the people that worked at the job?

Q21. No. Who had the work done? Yourself?

A. We had the work done, yes, I and Eustice. I paid for it—I incorporated the whole thing myself, but he was there on the job. I was here in Portland and only out there at times. [963]

Q22. Can you describe the construction of the side walls of the locker and pre-cooler rooms?

A. We first put up two by fours alongside the brick wall, and then put on shiplap, and then two layers of paper, one over the other, to make a tight wall, and then sealed that outside of this paper with flooring, tongue and groove flooring, nailed up tight. That is for the outside wall. Then we set up another wall ten inches farther in the room, just in the room like these two walls here (indicating). This wall here was built just the same only it had the two by fours set up this way, and the wall on this side with the space between. Then as we built this up, this space between was filled with the insulating material which we used, which was redwood bark.

Q23. The side walls of the pre-cooling and locker rooms, then, were all insulated?

A. They were all insulated just alike.

Q24. I show you a file of papers, the first of which purports to be a letter under the letterhead of Electrical

(Deposition of Fred L. Trullinger)

Products Consolidated, dated September 26, 1935, addressed to Mr. Fred L. Trullinger, Portland Seed Company, Portland, Oregon, Re Yamhill Locker Equipment. This letter is signed on the second page, "Electrical Products Consolidated," and underneath "C. W. Hulse." Can you identify this letter, Mr. Trullinger?

A. Yes. [964]

Q25. Will you do so.

A. This was the letter for the proposal covering the installation of the machinery in the locker plant.

Q26. The Yamhill locker plant?

A. The Yamhill locker plant; yes, sir.

Q27. Do you know by whom the letter and proposal was made?

A. It was made by the Electrical Products, I presume, and it was signed by Mr. C. W. Hulse.

Q28. Do you know Mr. C. W. Hulse?

A. Very well.

Q29. What was his business on September 26, 1936, if you know?

A. Well, I understood that he was a salesman for this Electrical Products Consolidated Company, and he came and sold me the idea of putting in this Brunswick, or Carrier-Brunswick. There were many salesmen came to see me to sell, but he sold me the idea of using their particular machines, and I presume that he was the salesman.

Q30. Do you recall having received a letter corresponding to the one before you on or shortly after September 26, 1936? A. I do, yes.

Q31. The letter which you have appears to be a copy of an original. Have you investigated your files to ascertain—

(Deposition of Fred L. Trullinger)

* * * * *

Q32. Mr. Trullinger, have you any other letters like this [965] one in your files?

A. I don't believe I have now. I haven't located any.

Q33. You have searched?

A. I have searched. That is a long time ago, and the files are not kept very good. I don't remember finding one just like this. It might be if I would search far enough, but I just didn't take the time to look.

Mr. White: Will the reporter mark the letter to which we have referred as Plaintiff's Exhibit Y-1.

(The copy of the letter referred to was marked Plaintiff's Exhibit Y-1 for identification.)

By Mr. White:

Q34. Mr. Trullinger, will you endeavor to locate a duplicate original or otherwise of this letter when you have time?

A. Yes, I will. I may have it in the files but, you know, I have had thousands and thousands of letters since this one.

Q35. If you are able to locate it will you notify me?

A. I will do that, yes.

Q36. The next paper in the file is headed "Electrical Products Consolidated, Carrier Order Transmittal." What significance do the words and figures on this sheet have to you?

Mr. White: Counsel, for the purpose of this witness' testimony, I will skip this document, so for the time being I will ask that it be identified as Plaintiff's Exhibit Y-2 for [966] identification.

(Deposition of Fred L. Trullinger)

(The document referred to was marked Plaintiff's Exhibit Y-2 for identification.)

Q38. The next document is captioned "Electrical Products Consolidated," and beneath that "Carrier," and beneath the word "Carrier," "Refrigeration-Air Conditioning," and the title of the paper appears to be "Order." At the lower right-hand part of this sheet appears the written name "F. L. Trullinger." Can you identify the signature?

* * * * *

Q39. Can you identify this document, Mr. Trullinger?

A. I can identify it, yes.

Q40. Will you do so, please. A. I identify it.

Q41. What is it? A. This one?

Q42. Yes. A. This is Carrier Order—

Mr. Lyon: Note that the witness is reading from the document.

Mr. White: Proceed.

The Witness: —dated September 25, 1936. You want me to read on?

Q43. No. Merely tell me if you know what the document is. [967]

A. Well, it is a contract that I signed with them.

Q44. With whom?

A. With the Electrical Products people.

Q45. Is that your signature to the contract?

A. Yes, this is my signature.

Q46. That is your original signature?

A. Well, apparently it is original. If it is a copy, it is a very good one. I believe it is the original.

(Deposition of Fred L. Trullinger)

Q47. Appearing also on this document is a signature appearing to be "C W. Hulse."

A. I know Mr. Hulse, but I don't know that signature because I don't know Mr. Hulse's writing. He may have written it there; probably did at the time, but I couldn't say.

Q48. The Mr. Hulse to whom you now refer is the Mr. Hulse whom you mentioned earlier? A. Yes.

Q49. This document contains, among other statements, the following: "The following described property situated in the City of Yamhill, County of Yamhill, State of Oregon, to wit: Equipment as per attached proposal installed at S. W. corner of Main & Maple Streets, Lot 2, Block 12, City of Yamhill, Yamhill County, Oregon." Do you know what property is identified by that lot description?

A. Yes, that is the property on which the store stands.

Q50. At Yamhill? [968] A. At Yamhill, yes.

Q51. Do you know to what the words "attached proposal" refer?

A. Well, this is attached to the other proposal which he made in writing, and it was along with the proposal that the company made to us.

Q52. Plaintiff's Exhibit Y-1?

A. Y-1; that is right.

Q53. On the reverse side of this same document I read the statement: "Terms, \$850.00 down: Balance \$850.00 to be paid thirty days after completion of installation." Below this statement I see a signature which appears to read "C. W. Hulse." To what do the stated terms refer?

Mr. Lyon: That is objected to on the ground that there is no proper foundation for the question. The document speaks for itself.

(Deposition of Fred L. Trullinger)

The Court: Overruled.

By Mr. White:

Q54. This document, as I recall your statement, has been identified by you as a contract entered into with Electrical Products. A. It is.

Q55. You personally entered into that contract, did you? A. I did.

Q56. Will you now identify the expression following [969] "Terms" on the reverse side of the contract?

A. The terms here are \$850.00 down and the balance to be paid in thirty days after the completion of installation. That was understood at the time, and that was the way it was carried out, with this change: That we did not pay the second \$850.00 because the installation was not satisfactory.

Q57. I will come to that later.

A. All right. [970]

Q58. In Exhibit Y-1, page 1, under the heading "Main Locker Room," I see the statement: "For this room which is 23 feet 2 inches wide by 27 feet 5 inches long by 11 feet 6 inches high—inside dimensions." Do you know whether those dimensions correspond to the dimensions of the locker room as completed?

A. I think it was very close to that size.

The Court: Will you read those again, or are they on a diagram here?

Mr. Lewis Lyon: No, your Honor.

Mr. White: I believe on no diagram, your Honor.

The Court: What are those dimensions again?

Mr. White: "* * * under the heading 'Main Locker Room', I see the statement: 'For this room which

(Deposition of Fred L. Trullinger)

is 23 feet 2 inches wide by 27 feet 5 inches long by 11 feet 6 inches high—inside dimensions’.”

The Court: 22 by 27 by 11 approximately.

Mr. O’Hearn: 23.

Mr. Lewis Lyon: Instead of 22, it is 23, your Honor; 23 feet 2 inches wide by 27 feet 5 inches long by 11 feet 6 inches high.

The Court: All right.

Q. By Mr. White: Then the question is: “Do you know whether those dimensions correspond to the dimensions of the locker room as completed? [971]

A. I think it was very close to that size.

Q62. Following under the heading “Pre-cooling Room” is the statement: “For this room which is 11 feet wide by 12 feet 1 inch long by 11 feet 6 inches high—inside dimensions.” Is it your belief that those figures correctly or approximately represent the correct dimensions of the pre-cooling room? A. They do.

Q63. Mr. Trullinger, I show you what appears to be a check on The United States National Bank of Portland, dated September 28, 1936, made to Electrical Products Consolidated, in the amount of \$850.00, and will ask you if you can identify the check.

A. I can identify that, yes.

Q64. Do so, please.

A. I identify this check as the one first given to the Electrical Products in the amount of \$850.00 on September 28th, 1936.

Q65. Does the check have any relation to the contract to which you have referred? A. The first payment.

Q66. That is your signature on the check? [972]

A. Yes.

(Deposition of Fred L. Trullinger)

Mr. White: Let the document entitled "Order," to which we have previously referred, be marked for identification as Plaintiff's Exhibit Y-3, including the matter appearing on the reverse side.

(The document above referred to, headed "Order," dated September 28, 1936, was thereupon marked by the Notary Plaintiff's Exhibit Y-3 for identification.)

Mr. White: Now may the check to which the witness has just referred be identified as Exhibit Y-4.

(The check above referred to, payable to Electrical Products Consolidated, dated 9/28/36, was thereupon marked by the Notary Plaintiff's Exhibit Y-4, for identification.)

Q67. Mr. Trullinger, have you made to date any search to ascertain whether you have other documents corresponding to Exhibits Y-1 and Y-2?

A. I have made this search, but I haven't found them. I told you that when you first started.

Mr. Lyon: Q68. Didn't you also say, Mr. Trullinger, that you didn't take time to look for them?

A. Well, I didn't take time to look until I found them. If you could see my files, you would know that it meant possibly a week's work to go through those files and find [973] that particular letter, because they are filed away in a great mass of other files.

Mr. Lyon: Q69. You didn't take the time to look for them, then, through those files?

A. I went through the original files, yes, and they were not there. You see, everything is transferred out of your original files into files that are kept.

(Deposition of Fred L. Trullinger)

Mr. Lyon: Q70. The only place that you looked for them was in the original files, where you knew they would have been transferred out of a long time ago?

A. No, I found these checks, among others, and found a part of the stuff in the original files, but I didn't find these others.

Mr. Lyon: Q71. You never looked into the transfer files for the others?

A. No. I didn't look in the transfer files because that would have been a big job.

Mr. Lyon: Q72. In the ordinary course of business they would have been transferred from the original files to the transfer files; is that correct?

A. That is correct.

Mr. White: Q73. You did refer to having found these checks?

A. Yes. They were in the bank statements, which weren't in the files at all. [974]

Q74. Did these checks include Exhibit Y-4?

A. They did, yes.

Q75. I show you what purports to be five additional checks, all drawn on The United States National Bank of Portland, and will ask you, if you can, to identify each of these with reference to the names and figures thereon.

A. You want me to read the checks, the amount that each is made out for and to whom?

Q76. If you will, please.

A. One check to Judd Brown for \$86.37, made out on November 14, was a payment for Redwood bark. S. Birkenwald for \$132.80, November 14, was for two doors to the locker plant. And October 2nd, 1936, to the Eureka Fiber Company, \$299.30, for "Palco" wool, which was

(Deposition of Fred L. Trullinger)

still Redwood bark ground up. The Lafayette Hardware & Lumber Company, dated October 2nd, for \$291.42, was for lumber for building the box, the locker, the locker box. And the check for \$466.86 to F. J. Leonard, he put in the flooring. He furnished the material and laid the floor with cork, two laminations, six inches of cork. I do identify these checks.

Q77. The materials to which you have referred were used in what construction?

A. In building the locker plant at Yamhill in the fall of 1936.

Q78. What parts of the locker plant? [975]

A. The construction of the box and the insulation. This particular lot of checks, that is material that went into the box.

Q79. When you say the "box," what do you mean?

A. Well, we call the room a box. It is the locker room. It is a big box built right in there, an insulated box, the locker room.

Q80. These checks have been in your continuous possession since received after payment?

A. Up until today.

Mr. White: Will the reporter mark these checks for identification in the order referred to by the witness as Plaintiff's Exhibits Y-5, Y-6, Y-7, Y-8 and Y-9.

(The checks last above referred to were thereupon marked by the Notary Plaintiff's Exhibits Y-5, Y-6, Y-7, Y-8, and Y-9, for identification.)

Mr. White: Q81. The checks bear your signature?

A. They do.

(Deposition of Fred L. Trullinger)

Mr. White: Q82. Do you know to whom they were given? A. I do, yes.

Q83. To whom?

A. One to Judd Brown, one to S. Birkenwald Company, one to Eureka Fiber Company, one to Lafayette Hardware & Lumber Company, and one to F. J. Leonard, in that particular exhibit.

Q84. Have you any record means by which you can identify [976] the time when construction of the Yamhill locker plant was started? A. These checks.

Q85. Do you have record identification of the time when the installation of the Carrier refrigerating equipment to which you previously referred was started?

A. I have my book here, my ledger.

Q86. What is the book or ledger to which you now refer?

A. This is just a private ledger in which I kept all my investments, and on page 184 in 1936 I made a record of a locker cold storage at Yamhill, Oregon. "Cost"—then I listed these checks as they were issued.

Q87. Was that record one kept in the regular course of your business?

A. Well, I couldn't say. This is a private ledger. It had nothing to do with my business, and I just made a record of those payments as they were made to get an idea of how much that locker plant was costing me.

Q88. For your personal information?

A. For my personal information, yes.

Q89. By whom were the entries on the page to which you refer made? A. By myself.

Q90. In your handwriting as they now appear?

A. Yes. [977]

(Deposition of Fred L. Trullinger)

Q91. Has this book been in your possession continuously since— A. It has.

Mr. White: Q92. Referring to page 184, will you explain what the entries purport to identify.

A. They identify the checks that were issued to various people who supplied material and labor for the building of the cold storage plant at Yamhill, my building.

Q93. Will you read the entries, please.

A. The first one is F. J. Leonard, on October the 2nd, for insulation, \$466.86. On 9/28, Electrical Products, payment on machine, \$850.00. On October 2nd, Lafayette Hardware & Lumber Company, \$291.42. On October 2nd, Eureka Fiber Company, for insulation, \$299.30. And on 11/10, for insulation, \$86.37. And on 11/10, Birkenwald, doors, \$132.80. And on 11/17 I paid on doors \$13.47.

Q94. Those entries refer to what work and materials?

A. The work and materials that were incorporated into the locker plant which we were building at that time at Yamhill.

Q95. Do you recall whether work was done and materials furnished before or after the date of the entries? A. Oh, before.

Q96. Why?

A. Well, I didn't pay anything in advance. I paid for it after it was installed. [978]

Q97. Is that true with respect to the \$850.00?

Mr. Lyon: It is an effort to get the witness to correct The Court: Overruled.

A. That is not true—

Mr. Lyon: It is an effort to get the witness to correct his testimony. It shows the character of the leading

(Deposition of Fred L. Trullinger)

examination of this witness, who will O. K. anything, apparently, that he is led into.

The Witness: No, no. I am not that kind of a man.

Mr. Lyon: Q98. I call your attention, Mr. Trullinger, and ask that you kindly be a little more careful of your testimony, here a little while ago you testified in answer to a leading question that this check had been in your possession ever since it had been issued, that being Exhibit Y-4, which I believe you will agree is obviously incorrect.

A. Why, certainly. Anybody would know that the check has to go through to the man that it is paid to.

Mr. Lyon: Q99. But still you so answered in response to a leading question.

A. The check has been in my possession ever since.

Mr. Lyon: Q100. Ever since it was issued, you stated.

A. Not issued, no. It was sent through and came back from the bank. That would be understood in any court.

Mr. Lyon: That is the reason why leading questions are not permissible in an examination of this kind. [979]

Mr. White: I think, counsel, that the purpose of the deposition may adequately be served by confining the objections to a formal nature.

The Court: The objection is overruled. Let's get on with the deposition.

Mr. White: Q101. There is one more specific question I wish to ask you regarding this exhibit, and that is

(Deposition of Fred L. Trullinger)

whether you have any other matter of record corresponding to the \$850.00 noted in your ledger.

A. Mr. Eustice paid that, I think, out there. I haven't any record here that he paid the final \$850.00.

Q102. To which \$850.00 payment does this refer?

A. This is the first payment.

Q103. The first payment? A. Yes.

Q104. How was that payment made?

A. By check.

Q105. What check? A. That is Exhibit Y-4.

Q106. Mr. Trullinger, are you acquainted with Mark Postlewaite? A. Very well.

Q107. Do you know his present location and business?

A. Well, I couldn't give you the exact street number. I know where it is. I can go to it. It is up here on the [980] East Side.

Q108. Do you know the name of his business?

A. Yes.

Q109. State it, please.

A. Just at this moment it slips my mind. It is Western Engineering Company, I think; Northwestern or Western Engineering. I think it is Western Engineering Company.

Q110. Did Mr. Postlewaite have anything to do with working on the Yamhill locker plant to the extent that you have described it?

A. He was superintendent or was out there and showed them how to install it, looked it over while it was being installed.

Q111. Do you know with whom he was associated?

A. Well, the Electrical Products.

(Deposition of Fred L. Trullinger)

Q112. Do you know Mr. Anton Broms?

A. I don't know Mr. Broms.

Q113. Do you know Mr. Gail Shapley?

A. I know Mr. Shapley.

Q114. Did Mr. Shapley have anything to do with the Yamhill locker plant?

A. He was out there and helped install it.

Q115. Did you see him there?

A. Well, it is a long time ago. I wouldn't swear that I did. I know he did work for those people at that time, [981] but there was several men out there who worked. I know Mr. Postlewaite—I took him out there myself one time, so I know he was out there.

Q116. Do you know whether Mr. Shapley was at the plant after it started in operation?

A. Oh, yes; many times. I took him out there myself.

Q117. Mr. Shapley? A. Mr. Shapley, yes.

Q118. For what purpose?

A. Well, for making adjustments, changes.

Q119. Mr. Trullinger, did you visit the Yamhill plant during its construction?

A. Oh, yes. I was out there every week end.

Q120. For how long, approximately?

A. For an hour, I would say. It might have been two hours. I don't know. I would go out there in the afternoon. I was in business here in Portland.

Q121. What did you do while there?

A. Just merely looked over the place. I didn't have anything to do with the building of it myself, any further than I paid the bills.

(Deposition of Fred L. Trullinger)

Q122. What did you look over, as you put it, while there?

A. Well, the way they put in the insulation, the way they were building the box, the way they were installing the equipment. [982]

Q123. After installation of the equipment did you visit the plant? A. Yes.

Q124. How frequently?

A. Oh, at first possibly every two or three weeks. I don't know. I can't remember just the exact time, or whether it was that often or not, but several times anyway.

Q125. And when there did you observe the installation? A. Yes.

Q126. To what extent?

A. Well, by looking the thing over and seeing what it was doing and checking it as to cold, and how it was operating.

Q127. Will you describe generally the refrigeration equipment installation made to cool the locker room?

A. The first installation, we set up—or the Electrical Products set up a diffuser in the cool room, or in the pre-cooling room, or in the anteroom, or the room outside of the main locker room, and they connected it up so that it blew the cold air into the locker room. And they took the air out at the bottom and through the diffuser, the cold diffuser, and forced it back over the top. They attempted to defrost that after it ran for two or three days. The vanes in the machine would gather frost and that would stop the circulation, and they attempted to defrost that by reversing the refrigerant, which would be hot on one side and cold on the other, and by [983]

(Deposition of Fred L. Trullinger)

reversing it they would bring the hot refrigerant back through the machine and melt the ice off of the machine.

Q128. May I interrupt? In the testimony which you are now giving will you please explain those things which you personally observed.

A. That is what I am doing. Several times I was out there and we discovered that the machine was not defrosting properly; that this reversing of the hot liquid did not defrost properly, and we objected to the installation on the ground. Mr. Hulse said that he would change the installation by putting in a water defrosting apparatus, something that he would build himself and put in there, and that it would do the defrosting properly. Mr. Hulse then went ahead and built this arrangement that he put into the machine, which was a movable water sprinkler for defrosting, and we found that it did not work very well because it was in the cool room, and it made the cool room too cold—that is, the diffuser—and he went ahead then and said that he would build an insulated wall around this cold diffuser. He did that and the plant worked all right from then on.

Mr. White: There, your Honor, is the answer to the assertion made some time ago that there is no testimony that the plant did not operate satisfactorily or did operate satisfactorily.

Q129. You refer to a spray pipe? [984]

A. Yes, sir.

Q130. Do you know where that spray pipe was?

A. Well, it was placed just over the vanes in the machine, and it had a lever on it that we could swing back and forth, and this spray pipe had little holes all along it,

(Deposition of Fred L. Trullinger)

and we turned the water through that and the water going down through the diffuser melted the ice from the vanes.

Q131. When you say "vanes," what do you mean?

A. Well, the diffuser is like a heating plant: The refrigerant goes through all these little pipes, and on each one of those little pipes there is a little vane sticking out to take up the heat as the air comes through, and the air passes up through those vanes and the refrigerant takes the heat out of the air and sends it back cold.

Q132. The refrigerant goes through the pipes?

A. The pipes, yes.

Q133. The vaned pipes?

A. The vaned pipes; that is it.

Q134. And where was this spray pipe with relation to the vaned pipes? A. Above.

Q135. How was water supplied to this spray pipe?

A. Well, we had an arrangement down underneath in the basement with a water pipe leading from the water system, just the city water system, and we had a valve there that we could [985] turn and turn water through it. When we turned it off it had a little bleeding place there that allowed the water to go back down out of the pipes so it wouldn't freeze as it went up into the freezing plant. Then underneath that, where the water went down through, we had a drain pipe that ran out down onto the floor in the basement. We had a barrel there or something to catch the water, or we just—our basement is just a dirt floor, and we let the water run on the floor.

(Deposition of Fred L. Trullinger)

Q136. I show you what purports to be diagrammatic views, includings Figs. 1, 2 and 3, and will ask you how these views compare with your recollection of the installation.

Mr. Lyon: That is objected to on the ground it is not the best evidence; incompetent, irrelevant and immaterial, and leading and suggestive; on the further ground there has been no proper foundation laid for any such views or secondary evidence.

The Court: There isn't any foundation laid for these diagrammatic schemes. Which ones are you referring to, incidentally, here?

Mr. White: It is intended to be merely illustrative of his recollection of the installation as it exists.

Mr. Lewis Lyon: It is objected to on the ground it has already been asked and answered.

The Court: There is no foundation for the diagrammatic scheme. Where did it come from? Who did it? The objection [986] is sustained.

Q137. Mr. Trullinger, does this equipment, as you have described it, still exist at Yamhill?

A. It does.

Q138. In the same condition?

A. Well, it is not installed now, but we have that same equipment out there. It was taken out. We don't use it any more.

Q139. How do these drawings compare with your recollection of the equipment as it existed when first installed and operated?

Mr. Lyon: The same objection.

The Court: The same ruling.

Mr. Neave: May I speak to that, your Honor, a moment?

The Court: Yes.

Mr. Neave: As I understand it, it is quite admissible for a witness to testify as to a photograph or a map or a drawing that it represents his recollection of a particular situation. Now, there are cases in this state, your Honor, stating that such maps are admissible and such photographs are admissible when the witness has testified that they do represent the situation.

The Court: A map?

Mr. Neave: Or a drawing or a photograph.

The Court: Or a photograph? [987]

Mr. Neave: Or a photograph.

The Court: That would be different than a schematic drawing. There is pretty nearly always a foundation laid for a photograph or a map, or the foundation is waived. Usually it is waived. But for a schematic drawing, where somebody pulls it out of the air after a man has described it, and says, "Does this represent what you have in mind?" I think it is objectionable, too, on the ground it is leading and suggestive in any event, on direct examination.

Mr. Neave: The thing I am getting at, your Honor, is that as a basis for the offer of these exhibits we want the testimony that the exhibits represent what the condition of the plant was, as shown on those exhibits. Now, he is shown a drawing. It doesn't make any difference where it came from. Or, he is shown a photograph, and he doesn't know where the photograph came from. It makes no difference if he can identify that the layout was the same as it existed; then that document is admissible as illustrative of what his testimony is. So we want to

have the testimony in, in order to get in the document. I have cases on that for your Honor, if you would like them.

The Court: I think I am familiar with the general rule. Almost invariably a photograph or a document is identified somewhere, or some foundation is laid for it. If that were permissible in every patent case somebody would produce a [988] witness and show him a drawing of the patent and say, "Isn't this what you thought of twenty-five years ago? That is the way you dreamed that thing up, isn't it?"

Mr. Lewis Lyon: Yes.

The Court: And he would say, "Yes."

Mr. Neave: I think you are going now to what it may prove. That is what its probative value is, and not as to its admissibility, but as to its weight.

The Court: I don't think such a question as that would be admissible in a patent case, or any other case, or in the patent in suit. Otherwise, people might say, "Isn't that the way you thought of this?" And the answer would be, "Yes, just that way."

Mr. Neave: I agree with you in a leading question of that kind.

The Court: That question is a leading question. It suggests the answer to him.

Mr. Neave: I don't recall, but there is another question saying: What is this? What does that represent?

What I am really getting at is if he says, "What does this represent?" and the answer is, "It represents the layout of our plant," then that document is admissible and the statement is admissible. I am not talking about the leading part of the question.

The Court: The objection is sustained. [989]

Would you like to have a rest for a little while, Mr. White?

Mr. White: Very well, your Honor.

(A short recess was taken.)

Mr. Neave: May it please the court: I have been trying to think of some way of shortening this procedure, and we have been having a little discussion about it. I would suggest this, that instead of reading all of these depositions into the record, that we simply offer them the way we did some of the other depositions, the direct and redirect testimony of these various witnesses whom we will name, and then we will offer certain of the exhibits.

The Court: Reading those portions which you wish to call my particular attention to?

Mr. Neave: Yes.

The Court: As I wouldn't feel satisfied to let the depositions go into the record and not know their contents.

Mr. Neave: Yes.

The Court: And I have no intention of taking the time to read them, because I have too many things that command my attention as soon as I walk through that door.

Mr. Neave: Yes. Once they are in the record, I was wondering whether your Honor's attention might not be called to the pertinent portions during the argument, and whether that would serve the purpose? [990]

The Court: It might. What do you think?

Mr. Lewis Lyon: I think it might, your Honor, in this particular case.

The Court: Reading the other witnesses' or this witness' direct testimony has straightened out something in my mind that I didn't have accurately from the previous witness, nor from the statement of counsel.

If that is agreeable to the parties, it is agreeable to me.

Mr. Neave: I think, your Honor, it might be well to finish Trullinger's testimony, the direct, now that we are in the middle of it, and do that with the rest of the depositions.

The Court: You don't have many left, do you?

Mr. Neave: Oh, there are quite a few. I think there are three others; three or four others, all on this prior use.

The Court: Yes, but we are on the Yamhill depositions, and that is the last.

Mr. Neave: That is the last prior use.

The Court: So you have only three or four different depositions left?

Mr. Neave: Yes.

The Court: Out of twenty-seven. I think you are getting down pretty well.

Mr. Neave: We are making some progress anyway. Then suppose we finish this direct testimony. [991]

The Court: Then counsel can do whatever he wishes about the cross examination.

Mr. Lewis Lyon: Yes. When we get to that, I will determine what I want to do with it. There are parts that I will definitely want to call to your Honor's attention, and I may want to read it.

Mr. White: We will start with the question at the bottom of page 30.

The Court: Yes. I had sustained the objection to the introduction of the schematic diagram, so that would be the next following question after that.

Mr. Lewis Lyon: I think that concludes the deposition. It is all on that, on the endeavor to use these.

Mr. White: On page 30, following the statements in the record concerning this exhibit a statement is made by me that the witness has testified that he was present at frequent intervals and that he saw the equipment then existing, which no longer exists. I call attention to that as a preface to the question which Mr. Lyon asked, and then my statement was followed by Mr. Lyon's statement three lines from the bottom of the page.

The Court: He said the equipment was in existence but it was no longer in use. I think that was the statement he made. I made a note of that answer.

Mr. Lewis Lyon: No, that is just the point of my last [1982] statement, your Honor. He said, no, he hasn't.

Mr. O'Hearn: I beg your pardon.

The Court: "I have seen the equipment taken out" is the note I made, or at least that is the substance of his answer. In other words, he had it some place that he was not using it.

Mr. O'Hearn: It was not in use.

Mr. White: The answer is, specifically:

"Well, it is not installed now, but we have that same equipment out there. It was taken out. We don't use it any more."

The Court: Is that the end of his direct?

Mr. White: No, sir.

The Court: I think you should start with Question 140. [1993]

(Deposition of Fred L. Trullinger)

Mr. Lyon: Q140. Why isn't it in use?

A. Well, that comes later.

Mr. Lyon: Q141. Well, why isn't it in use?

A. We found out that there is so much better equipment than water for the defrosting of diffusers that we wouldn't think of ever going back to using water as a defroster.

Mr. Lyon: Q142. When did you take it out?

A. 1938.

Mr. White: We will come to that later, counsel.

Mr. Lyon: Q143. Because it did not work satisfactorily; isn't that correct?

A. No, wait a moment. Yes, it did work satisfactorily, but we have got something much better now. The plant worked all right, but it required work, and we wanted something that did not require a man to do the work, which we have now.

Mr. White: Q144. Mr. Trullinger, when I refer to these views and say "equipment" I mean all the equipment represented on those views. Now does all that equipment still exist at Yamhill as connected and laid out as you see it in these views?

A. No, it isn't now.

Mr. Lyon: That refers to the same sketch and same objection, your Honor.

The Court: What?

Mr. Lewis Lyon: I say that refers to the same sketches [994] that were presented to the same witness and objection has already been sustained to that line of examination.

The Court: Let me hear the question again.

Mr. White: "Mr. Trullinger, when I refer to these views and say "equipment" I mean all the equipment rep-

(Deposition of Fred L. Trullinger)

resented on those views. Now does all that equipment still exist at Yamhill as connected and laid out as you see it in these views?"

The Court: I don't know what views you are referring to.

Mr. Lewis Lyon: The views were the sketches that were presented to him and your Honor previously ruled them out.

Isn't that right, Mr. White?

Mr. White: That is true, so far as the sketches are concerned. I was merely trying to establish whether the witness knew as to the then present existence of the equipment.

The Court: Of course you can't change your question now because the witness is not here, so I guess I will have to sustain the objection, which is now made.

Mr. White: Q201. Mr. Trullinger, will you explain the situation of the diffuser when it was first installed.

A. It was installed in the cool room or the room adjacent to the locker room.

Mr. Lyon: That is objected to as already having been asked and answered a couple of times.

The Court: Objection sustained. [995]

Mr. White: Q202. Will you describe the operation as you saw it when water was first used to defrost the coil?

Mr. Lyon: That is objected to as already having been asked and answered.

The Court: Objection overruled. It wasn't asked, and answered, of this witness.

A. The diffuser bottom and top intake of air was closed so that there would be no cold air coming through from

(Deposition of Fred L. Trullinger)

the locker room. I am giving you the operation of the plant now, as it would be operated. Then whoever was doing the work would go downstairs and turn on this stop and waste valve, which would force water up through this pipe which sprinkled the water down over the coil. And as it was being sprinkled through he would take hold of the lever and pull it to different points on the coil, and when the ice was cleared he would go back down and close his valve, which immediately opened the waste and allowed the water to run back, or it ran up to the point where it ran down to this point for sprinkling.

Q203. When you say "allowed the water to run back," what do you mean?

A. Well, the waste would open and allow the water to run back.

Q204. Run back from where?

A. From this pipe that led up to the sprinkling pipe. You see, that went into a cold room and would freeze up if it didn't leak the water back. [996]

Q205. And where did the water run that was so drained?

A. Oh, just out on the floor. It was a dirt floor.

Q206. Where was that dirt floor?

A. In the basement.

Q207. In the basement? A. Yes.

Q208. Where was the stop and waste valve with relation to the basement?

A. Well, it was in the basement, up near the ceiling of the basement. You had to reach up to turn it on.

Q209. At its present location?

A. Yes, at its present location.

(Deposition of Fred L. Trullinger)

Q210. When the diffuser unit was first installed was it visible in the chill room?

A. Yes, it was not covered up.

Q211. You mean that it was openly placed?

A. Openly placed, yes.

Q212. Was that condition satisfactory?

A. No, it wasn't satisfactory.

Q213. Why not?

A. Well, it got too cold. It made the cold room too cold.

Q214. When you say "too cold," what do you mean?

A. Well, we wanted to carry that at about 35, and it ran it down to below freezing. [997]

Q215. How did you know it was below freezing?

A. Well, I saw ice on the meat. The meat would freeze up and the vegetables would freeze. And we had a thermometer there, too, which would show that it went down to 30, which was entirely too cold for a cool room.

Q216. Where was that thermometer, Mr. Trullinger?

A. Oh, on the wall; just hanging on the wall.

Q217. In the chill room?

A. In the chill room, yes.

Q218. Did you personally read the thermometer?

A. Yes.

That is why we objected to the installation.

Mr. White: Q219. During that time and from your recollection of reading the thermometer, was the temperature in the chill room above or below freezing?

A. Well, sometimes it would be below and sometimes it would be above, but its being below is why we objected.

Q220. Was anything done to correct that condition?

A. Well, an insulated wall was put around the plant.

(Deposition of Fred L. Trullinger)

Q221. Is that insulated wall identified on the drawing?

A. It is.

Q222. Where, please?

Mr. Lyon: That is the same drawing, your Honor.

The Court: Yes.

Mr. White: Q223. What did that insulated wall do to the [998] space occupied by the diffuser unit?

A. Well, it insulated it from the chill room so that the chill room would hold its steady temperature.

Q224. How high did that wall extend?

A. Oh, it extended up to the top of the room.

Q225. From the floor?

A. From the floor up to the top, yes.

Q226. After the insulated compartment wall was installed how was the spray pipe handle operated?

A. With a lever that came out through the wall.

Q227. Do you find the lever on the print?

A. It is shown here on the print.

Q228. Designated as what?

A. Designated as the "Spray Pipe Oscillating Handle."

Q229. How did that handle operate?

Mr. Lyon: That is objected to as having been already asked and answered several times.

Mr. White: Q230. From what point?

A. From the outside you push it in and out, and that worked a lever inside which moved the pipe back and forth and sprayed the water down over the coil.

Q231. Had you made any observations concerning temperature conditions in the insulated locker room before the insulated compartment wall was placed?

A. No. We held it at about 10 above zero, and that is [999] the way it always was, and I didn't notice any differ-

(Deposition of Fred L. Trullinger)

ence—any change other than that we could defrost now and before we couldn't.

Q232. What is the basis for your statement that a temperature of zero to 10 degrees existed in the locker room?

A. Ten degrees above zero. We had a thermometer there, and it was held at or near that. Of course, there was times when it might be higher or it might be lower, but that was the attempted temperature to be held.

Q233. Did you personally read the thermometer?

A. Oh, yes; many times.

Q234. Can you compare the temperature in the insulated locker room and the temperature in the insulated compartment.

A. No, I have no way of comparing that.

Q238. Did you see the unit in the insulated compartment?

A. I helped build the compartment. While it was being done I drove nails on the wall. I saw it in there, yes.

Q239. Did you personally operate the water defrosting system?

A. Several times, yes.

Q240. Mr. Trullinger, what did you do exactly when you operated that system?

Mr. Lyon: That is objected to as already asked and answered.

Mr. White: We have no record of the witness' answer.

Mr. Lewis Lyon: The answer is, "I told you a while ago just exactly," so apparently the witness agreed with me. [1000]

The Court: He testified a little previously there that the way it was defrosted was that he agitated the handle

(Deposition of Fred L. Trullinger)

and sprayed the water. Of course, the question technically was not asked and answered, but you asked him, "What did you do." Is it necessary to go into that? Is he going to say that he turned the valve down, went and agitated it, the water ran down and and then he turned it off?

Mr. White: The purpose was to establish what this man himself did in going through the operations.

The Court: Objection overruled. Let us find out.

A. I told you a while ago just exactly. I could repeat that same formula that I did personally. If that is necessary, I can say that all over again.

Mr. White: Q241. Did the water defrost system as you personally operated it satisfactorily to you defrost the coil?

Mr. Lyon That is objected to as calling for a legal conclusion, and on the further ground that the witness is not competent to answer any such legal question.

The Court: Overruled.

A. It was satisfactory.

Mr. White: Q242. Did it defrost the coil?

A. It did.

Q243. Did you observe the coil afterwards?

A. Yes, it did. [1001]

Q244. Compare the appearance of the coil before and after you operated it.

A. Before it was all closed up with ice and frost, and afterwards it was clean of frost and ice.

Q245. What happened to whatever was removed from the coil?

A. Oh, it melted off and went down through the drain pipe.

(Deposition of Fred L. Trullinger)

Q247. Do you know whether that drain pipe is still in existence?

A. Well, it may be out there. I couldn't say. I don't know. There is a hole there in the floor; I know that; but I don't know where the pipe is. It may be laying around in the basement somewhere. I think it is still there. I think it is still in use, because we still use that same drain to carry off the water when we defrost it. I think that pipe is still in there.

Q248. Over approximately what period of time was this water defrost system used?

Mr. Lyon: We object to that on the ground it is asking for a presumption.

The Court: Asking for what?

Mr. Lewis Lyon: A presumption that it was used, I guess.

The Court: Overruled.

A. Well, it was used for several years; two years, at least.

Mr. White: Q249. Starting at what time? [1002]

A. Around 1937; in January, I think. We have got the figures here showing when we paid for the work that was done. I don't know just the exact date, but there is figures showing that. You can get that from the last payment of the check, because that was the date that that \$850.00—the last payment was made.

Mr. White: The witness has pointed to a paper captioned "Invoice, Electrical Products Consolidated."

Q250. Do you recall having seen before that paper or one like it?

A. Yes, I recall that, because that was the last—maybe not this particular one, but a one in which we paid the last

(Deposition of Fred L. Trullinger)

payment of \$850.00. That was on December 14th, 1936. That is when we told him, or within a week of the time that we told him the plant was satisfactory.

Q255. Do you recall what eventually happened to this water defrost system which you have described?

A. Well, we took the diffuser and put it into the main room, and then we used air instead of water for defrosting.

Q256. By the "Main Room" you mean the locker room?

A. We put it in the locker room. We took it out of the chill room and moved it into the locker room and put in air ducts and used air for defrosting.

Q257. Is the same unit still in the locker room?

A. The same unit, yes. [1003]

Q258. I will ask you, Mr. Trullinger, to identify the photograph, if you can, which I now hand you.

A. This is the basement floor looking up—the basement ceiling, looking up toward the ceiling in the basement.

Q259. By the way, have you recently inspected this basement ceiling to which you refer?

A. Oh, I was out there Sunday two weeks ago; not particularly to inspect it, but I saw it.

Q260. Proceed with your identification of the photograph.

Mr. Lewis Lyon: I would like to interrupt at this time. You eliminated the matter on page 54, your attempted identification of the document, to which Mr. Trullinger testified, as he alleged, showing the second payment of \$850.00, also the testimony about searching his records.

The Court: I notice that there wasn't any document offered in connection with the last payment. He said something about an invoice, but it was not offered.

(Deposition of Fred L. Trullinger)

Mr. Lewis Lyon: It was offered, but he just skipped it. There is a particular point with reference to the document Y-14 or Y-13.

Mr. White: Let's read that portion of the record on page 54, beginning with question 253:

Q253. Mr. Trullinger, have you searched your records to ascertain whether you have a paper like this one, which I will now ask to be identified as Plaintiff's Exhibit Y-13? [1004]

(The document above referred to, headed "Invoice, Electrical Products Consolidated," dated December 14, 1936, was thereupon marked by the Notary Plaintiff's Exhibit Y-13 for identification.)

A. I have searched, but I don't think I found anything like that. I know that we had one at the time; that we had a receipt for our money. But I don't remember finding that particular billing.

Q254. How does the date of Exhibit Y-13, December 14, 1936, compare with your recollection of the time when the installation and its operation were approved?

A. It was about that time.

Mr. Lewis Lyon: I would like to point out that I objected to that as leading—and it is very material, not that I want the answer stricken, but it shows the character of the witness' testimony, as will be brought out on cross examination.

The Court: All right. Then you are going to argue later that at page 184 he doesn't show the second payment?

Mr. Lewis Lyon: No, your Honor. The point of that is on cross examination this document, Y-13 which he

(Deposition of Fred L. Trullinger)

identified as showing the final payment establishing the date, and so forth, he admits was merely another billing for it, and it doesn't show any payment at all.

The Court: The document doesn't show any payment on its face, nor does page 184 of his personal ledger show any such [1005] payment.

Mr. Lewis Lyon: No, your Honor, but here he says that it does, that this document Y-13 is the second payment. Not only he, but another witness makes the same assertion and has to back up when he actually looks at the document.

The Court: Well, we will argue that when we get to it.

Mr. White: We were previously referring to page 55, to a photograph.

Q260. Proceed with your identification of the photograph.

A. Well, this is just under the stairway as you go down, and this water pipe here is not used for the purpose which we used it then. You can see where there was a hole in the floor, but it was not used for that purpose.

Q261. In referring to the pipe will the witness please mark that pipe "P."

A. That is this pipe here. This is that stop and leak pipe. That is used for another purpose entirely now.

Mr. White: The witness has just placed a cross mark on the elbow of the pipe.

Q262. What does that pipe contain or what did that pipe contain at the time when the water defrost system was in operation?

A. That led the water from the water main, the regular city water main, into the diffuser sprinkler system.

(Deposition of Fred L. Trullinger)

Q263. I call your attention to a part immediately beyond [1006] the elbow which you have marked.

A. That is the stop and waste we used at that time.

Q264. Is that stop and waste still existent?

A. Yes, it is still there.

Mr. White: Let the photograph be marked Plaintiff's Exhibit Y-14.

(The photograph above referred to was thereupon marked by the Notary Plaintiff's Exhibit Y-14 for identification.)

Mr. White: Q266. I now hand you another photograph and will ask you to identify the same, if you can.

A. This is that same pipe that was in there at that time.

Q267. Will you mark that pipe described.

A. It is not in use any more, but that is the pipe that we used at that time.

Q268. I notice a part appearing on the photograph as "½ inch Crane." Is that the stop and drain valve to which you referred?

A. That is the stop and drain valve we have referred to.

Q269. Will you please mark that.

A. I did, with a cross.

Q270. A cross with a circle around it?

A. All right, with a circle around it.

Mr. White: Let this last photograph be marked Exhibit Y-15. [1007]

(The photograph above referred to was thereupon marked by the Notary Plaintiff's Exhibit Y-15 for identification, and the same is attached.)

(Deposition of Fred L. Trullinger)

Q271. Going back to Y-14, Mr. Trullinger, can you identify the large pipe?

A. That is the drain pipe we use still today. It is the same pipe we used then.

Mr. White: Q273. Will you mark that pipe "D," please.

A. (Marking on photograph). It is a slippery "D."

Q274. I show you another photograph, Mr. Trullinger, and ask you if you can identify this one.

A. This particular one is in the installation around the air duct pipe which we have in there now.

Q275. I call your attention to a dark mark on a wall.

A. That is the old line where we put in the insulated wall that was taken out when we moved the diffuser inside of the locker room.

Q276. What insulated wall is that?

A. Well, that was the chill room, or the insulated wall that went around the diffuser. This wall here (indicating).

Q277. Appearing immediately below the words "Insulated Compartment" in "Fig. 1"?

A. That is right.

Q278. Does this photograph accurately represent the [1008] appearance of that wall mark today?

A. Oh, I wouldn't say; I don't know. I never paid any attention to that mark, but I know there was a wall along there.

Mr. White: May this photograph be marked for identification as Y-16.

(The photograph last above referred to was thereupon marked by the Notary Plaintiff's Exhibit Y-16 for identification.)

(Deposition of Fred L. Trullinger)

Mr. White: Q279. I show you a further photograph and will ask you to identify the same, if you can.

A. That is the diffuser as we have it installed at the present time in the locker room.

Q280. In the view you notice a hand carrying a pencil pointing toward what appears to be a hole. Can you identify that hole?

Mr. Lyon: That is objected to on the ground there has been no proper foundation laid.

The Court: Overruled.

A. We cut that hole in there to put the pipe through for distributing the water.

Q281. Did you personally see the distributing pipe in that hole? A. Yes, I did.

Q282. And that is the hole which contained it in the unit [1009] at the time to which you referred.

A. Yes.

Mr. White: Let this be marked as Exhibit Y-17.

(The photograph above referred to was thereupon marked by the Notary Plaintiff's Exhibit Y-17, for identification.)

Mr. White: Q283. In this final photograph you will note what appears to be a fowl. A. A turkey.

Q284. Will you tell us what you know about that turkey?

A. This turkey was filled with water as an experiment. All this thing was new to us, so we thought we would advertise it to the neighborhood what freezing would do. We filled the turkey with water, froze it, and set it up on top of a locker box before this unit was placed inside.

(Deposition of Fred L. Trullinger)

Q285. When was this turkey so prepared?

A. Well, that was November the 1st—November something there, 1936.

That ticket was put on there at that time. It has been there ever since.

Q286. Mr. Trullinger, who was it prepared the turkey? A. Mr. Eustice.

Q287. Did you see him do it?

A. No. He showed it to me shortly after it was in there.

Q288. The turkey was placed in what room? [1010]

A. In the locker room.

Q289. Have you actually seen that turkey?

A. Oh, yes; for many years.

Q290. How frequently have you seen that turkey since that time?

A. Well, I see it every time I go in the plant, because it is right there in the door. You can't help but see it.

Q292. When, to the best of your recollection, did you first see what appears to be a tag on the turkey?

A. That was placed on the turkey when it was first put in there.

Q293. For what purpose?

A. To show to customers how long we had had that turkey in the locker plant.

Q294. Is the turkey still in existence?

A. Oh, yes. It is still there. I wouldn't want to eat it.

Q295. Why not?

Mr. Lyon: It wouldn't be edible, would it?

A. It wouldn't be edible; not now.

(Deposition of Fred L. Trullinger)

Mr. White Q296. Why not, Mr. Trullinger?

A. Well, it is dehydrated. It is dried out.

Q297. What as to its condition otherwise?

A. It has the form—

Mr. Lyon: That is objected to as calling for a conclusion of the witness; on the ground the witness is not qualified to [1011] answer such a question as to its condition otherwise.

The Court: Didn't you waive the objection when you asked him whether or not it was edible?

Mr. Lewis Lyon: He is asking about the "otherwise."

The Court: Yes, I know. The objection is overruled.

By Mr. White:

Q298. Based upon the experience to which you have testified in connection with locker plants, what would you say as for the last time you saw this turkey is its condition with respect to its state of preservation?

A. Oh, it is still preserved.

Q299. About how recently, Mr. Trullinger, have you observed that turkey?

A. I saw the turkey about a week ago last Sunday. I was out there.

Q300. What relation does the present condition of the turkey bear to the refrigerating conditions in the locker room?

A. Well, it shows that for all these years the turkey has been frozen and it has not spoiled. And that is what we put it in there for, to advertise to the patrons that the turkey—in the early days when we first started this no one would believe that you could freeze anything and make it keep. They had to be shown, and this is the demonstration.

(Deposition of Fred L. Trullinger)

Q301. About what was the locker capacity of the locker room?

A. Three hundred fifty lockers, I think. I am not [1012] certain about that. There is more in there than that now, but that was about the size then.

Q302. You spoke of the water defrost system having been discontinued in favor of another type of defrost system.

A. Air.

Q303. About when, to the best of your recollection, was that change-over made?

Mr. Lyon: That is objected to on the ground that the witness has not been qualified to answer the question.

The Court: Overruled.

A. Well, it would be a guess. It was several years afterwards. I don't know just how long.

By Mr. White:

Q304. Until the hot air defrost system was used what means did you use from the start of the operation of this plan for defrosting the coil?

A. We used water sprinkled over the coils.

Q305. The same system that you have described?

A. Yes.

Q306. And the only system?

A. Well, we originally started with hot gas. but it failed to work.

Q307. I mean after starting the water defrost system and until warm air was substituted water was the only system?

A. Water was the only system. [1013]

(Deposition of Fred L. Trullinger)

Q308. Was the water defrost system for your purpose satisfactory?

A. It was. It did work, but it required more work than the air.

Mr. White: Let that photograph be labeled Plaintiff's Exhibit Y-18.

(The photograph referred to was marked Plaintiff's Exhibit Y-18 for identification.)

Mr. White: You may cross examine.

Cross Examination

By Mr. Lyon:

Q309. Mr. Trullinger, have you any record of any kind or character when you stated that this change-over was made to place the Carrier diffuser unit on the inside of the locker room? A. I have records on that, yes.

Q310. Where are they?

A. Well, they are in my office.

Q311. You have not produced them?

A. I wasn't asked to produce them.

Q312. Now, you have stated that you could see, after this insulated wall which you have identified as having been placed around the diffuser unit, and that you did see the condition of the coils in the diffuser unit before you defrosted those coils; is that correct? [1014]

A. That is correct.

Q313. How could you see them?

A. Through this opening right here. You look right up here.

(Deposition of Fred L. Trullinger)

Q314. From the bottom you could look up?

A. Oh, yes. You can go there and see now, right up and see those coils.

Q315. You got down on your hands and knees and looked up at those?

A. That is the way you tell when you have got it defrosted. That is the only way you have. We had to do it.

Q316. You got down and looked up. What part of those coils can you see? A. The bottom.

Q317. You could only see the bottom coil; isn't that true?

A. That is true. And when that is defrosted it is all defrosted, because it defrosts from the top down.

Q318. You can only see one part of those coils; not the whole length of them; isn't that true?

A. What do you by mean by that?

Q319. You can't see the whole length of the pipe from the position that you can look?

A. Oh, you mean each pipe, these coil pipes at the bottom? [1015]

Q320. That is right.

A. I don't think you can see the coils at all. I think all you see is those vanes. It is like an automobile radiator.

Q321. How much of the length of those vanes can you see from looking up? How much did you ever see?

A. I would imagine about a foot.

Q322. About one foot of them. How long is that diffuser unit?

A. Well, you see the whole length of it when you look up through. You can see from one end to the other. You

(Deposition of Fred L. Trullinger)

see, it is about five feet long, I think; just about five feet feet this way.

Q323. You can see about one foot of it when you look up?

A. One foot this way, but you can see the whole length this way.

Q324. The whole length?

A. That is right. Here is your line of vision, right here. You can see from here up to there (indicating).

Q325. Isn't it a fact, Mr. Trullinger, that before you started to defrost you had a vane which you closed over that opening, closed completely over that opening?

A. Not when it was out in this other room. We couldn't do that. It was out in the other room, mind you.

Q326. You couldn't go on inside of the locker room and close the vane? [1016]

A. No, this vane is in the inside. It is in the locker room. There is a door right there that we opened and looked in.

Q327. I see. And over that opening you had a vane, didn't you? A. At the top.

Q328. And at the bottom?

A. Well, at the bottom we just had a door that closed.

Q329. And that door at the top and at the bottom of those vanes was for what purpose?

A. To let air in and out.

Q330. Why did you close it?

A. So that the water would not freeze when we were pouring it down through there. If we left that open we would have the air from the freezing room right in there.

(Deposition of Fred L. Trullinger)

Q331. That would freeze the water?

A. Well, it would; yes, surely.

Q332. You found that out from observation, did you?

A. Well, we thought it would.

Q333. Did you ever see it do it? A. No.

Q334. Now, is it my understanding that you actually, when you said that you operated this system, got down on your hands and knees and looked at the coils before you turned on the water? [1017]

A. No, sir; didn't need to.

Q335. Is it my understanding—

Mr. White: Just a moment. Let the witness finish his answer.

The Witness: We didn't need to look before. It is after, when you have defrosted; that is when we wanted to know, not before.

By Mr. Lyon:

Q336. Is it my understanding that you personally got down on your hands and knees and looked up on the coils after you had turned the water on?

A. Absolutely, because it was given to me to do, and I had to do it to know that it was done.

Q337. Was that before or after you turned the water off?

A. That was after we turned the water off or before, either one. It didn't make any difference when we looked.

Q338. Well, when did you look? I am asking you; not when somebody else looked. When did you look?

A. Ask me back at 1936. Let's see; that would be—six from fifteen is nine years ago—whether I looked before or after. I may have looked at both times.

(Deposition of Fred L. Trullinger)

Q339. You can't tell me now?

A. Well, it is immaterial whether I did before or after?

Q340. You can't tell me now which one it was? [1018]

A. Why, absolutely not.

Q341. You have no recollection of whether you looked before you turned the water on or afterwards?

A. I couldn't tell you whether I went out to piss before.

Q342. Just keep it on the record, please. Now you have also testified, in referring to this photograph which has been testified, in referring to this photograph which has been marked Exhibit Y-14, that this pipe which you have marked "D" was drain pipe is that correct?

A. That is correct.

Q343. And that drain pipe is now in exactly the same position that it was before; is that correct?

A. No, sir. It has been moved into the locker room now. When we moved the machine in we moved the drain pipe to take the same place.

Q344. Now was there anything else done at the time that pipe was moved? A. Which do you mean?

Q345. Anything else done to the ceiling? Any holes plugged up? A. I don't think so.

Q346. And the hole would still be there showing its original position? A. It should. [1019]

Q347. Will you look at the photograph and see if you can find where the hole is.

A. I think it should have been—this is looking up here. I don't see anything, but it is this place right here (indicating on photograph). There might be a hole there.

(Deposition of Fred L. Trullinger)

Q348. That is on the other side of the beam, is it not?

A. Yes. You see, the machine was moved from this room over into this room. Now there must have been about five or six feet between this hole and the next hole, wherever that might be.

Q349. Now doesn't that hole on the other side of that beam indicate what you previously referred to as the hole through which the water delivery pipe extended?

A. This hole here. I think it is.

Q350. I see. But you can't find the other hole that you say the drain pipe was moved to?

A. I am not trying to find it. I am not trying to find it. The hole is there. You can go and see it for yourself.

Q351. You don't find it on this photograph?

A. He didn't put it on the photograph.

Q352. Somebody didn't fix this photograph so it was on there; is that what you mean?

A. No, no. You know better than that.

Q353. No, I don't.

A. Well, you should. You don't fix up a photograph.

Q354. You can't find a hole on that photograph, can you? [1020]

A. I know there is a hole there. That is all I need to know and all you need to know, too. There was a hole there.

Q355. But you can't find a hole on that photograph?

A. Well, I didn't take the photograph. If I had taken the photograph I could have taken the hole. [1021]

Q356. You were not present when the photograph was taken? A. Absolutely not.

(Deposition of Fred L. Trullinger)

Q357. Do you know when the photograph was taken?

A. No, sir; I have no idea when that photograph was taken. Let's hurry this up.

Q358. I am sorry, Mr. Trullinger. You can't tell me to hurry this thing up, because, after all, you have spent from eight o'clock to 10:45 on direct examination.

The Witness: Let's hurry it, anyway, because I want to get home. I have got to get up in the morning.

Q359. Now when you kept this personal record and entered the cost of this locker plant therein, as you have testified, on page 184, I believe you testified that you entered into that record the total cost of that locker room for your investment purposes, did you not?

A. Well, if I did, that was a mistake. I testified that this was a list of the checks as I wrote the checks. I wrote them in there. There is a lot of other costs. That locker plant cost around five thousand dollars. There is only just a small amount of it there.

Q360. I see. Well, then this record that you kept is only a partial record and was kept not in the regular course of business and partially for your own information; is that correct?

A. It was for all of my own information, covering these [1022] checks. These are the only checks that I paid out. All the others were paid out by Eustice out at Yamhill.

Q361. Now you have identified this document, Y-13, as being an invoice showing the final payment to the Electrical Products Company have you?

A. That is right.

(Deposition of Fred L. Trullinger)

Q362. You are acquainted with bookkeeping, are you not?

A. Well, I should know something about it.

Q363. Don't you see an extension of \$850.00 still due and owing, according to that statement? Isn't that the receipt which was issued to you for the first payment and not the final payment?

A. It might be. Let's see. I can get the date and see. That might be. The bill has been paid, though. I know that.

Q364. But you have no recollection when nor did you pay it?

A. I didn't pay it.

Q365. Referring to this photograph, Exhibit Y-16, I believe that you testified on direct examination that this dark line indicated where the so-called insulating wall was in the chill room; is that correct?

A. That is correct.

Q366. And that does so indicate?

A. Yes.

Q367. And that indicates the height of that wall, too, [1023] doesn't it?

A. Well, the wall went up to the ceiling. We have testified to that.

Q368. And that dark line does not run up to the ceiling, does it?

A. Why, sure. It is right on the ceiling. There is your ceiling. It couldn't be any place else but on the ceiling.

Q369. Is there any line on the side wall?

A. Well, there is a little mark there on the side wall, right along there (indicating).

(Deposition of Fred L. Trullinger)

Q370. Is there any mark that indicates there was an end wall to that?

A. Here is something here that looks like there might have been an end wall right here. See this in her (indicating)?

Q371. Have you inspected that room to determine whether or not those lines make any such indication or not?

A. No. I told you that before.

Q372. You don't know, then, whether that photograph or any of those lines indicate any such wall, do you?

A. Well, I say it looks like—from the appearance it looks like that is where the wall was.

Q373. You are guessing that that might have been it, then; you have never checked it; isn't that correct? [1024]

A. That is correct.

Q374. Do you know who did the work of moving the Carrier diffuser from the chill room into the locker room?

A. The Western Engineering. Mr. Shapley, I think, did the work.

Q375. Do you know at what temperature the locker room is kept at the present time?

A. Right near zero; sometimes four above and sometimes down to zero. Today it might have been six above zero. It was held as close to zero as we could hold it.

Q376. It might have been considerably higher than that today, might it not?

A. As hot as it is today it might have been different. I say, you can't tell.

Q377. You haven't seen it?

A. I haven't seen it.

(Deposition of Fred L. Trullinger)

Q378. When is the last time you saw the temperature of the room?

A. I saw the temperature Sunday a week ago.

Q379. What was it then?

A. It was four above zero at that date.

Q380. What time of the day?

A. About noontime.

Q381. Do you know what is referred to in this proposal which you have identified by these words: "This machine is [1025] to be equipped with automatic hot gas defrosting"?

A. I understand what that means, yes.

Q382. What does it mean?

A. It means, as I testified to start with, that the plant was put in that way and the hot gas was changed. They pumped it one way, and they closed the valves and forced the hot gas back through the diffuser to defrost it.

Q383. How was that done?

A. Well, I just told you. They closed the valve.

Q384. What valve?

A. The refrigerant valve. There is two valves; one with the small pipe, which is the hot pipe, and the big pipe, which is the cold pipe. They closed the big pipe and reversed the flow of the refrigerant, the hot gas back through the coils, and that is supposed to do the defrosting.

Q385. Did they do anything else with any other valve?

A. How do you mean?

Q386. When they reversed the flow?

A. Well, they closed one and opened the other. They just reversed it that way.

(Deposition of Fred L. Trullinger)

Q387. And was the compressor still allowed to operate?

A. I wouldn't say that. I don't know. I didn't operate that myself.

Q388. Did you ever see that operated?

A. We have two plants now. [1026]

Q389. I am asking about the Yamhill plant. Did you ever see that operated? A. I never saw it operated.

Mr. White: Q390. I think you are speaking now of the hot gas defrost system?

A. The hot gas defrost system, yes. I never saw that operated, only I know it didn't work.

Mr. Lyon: Q391. You have two plants now that use the hot gas method of defrosting? A. Yes.

Q392. Satisfactorily? A. Very satisfactorily.

Q393. I see. But the hot gas method would not work on this plant?

A. It wasn't built properly, they have discovered. Now we defrost this plant twice a day. That plant was only defrosted once a week, and it wouldn't defrost that way. It just didn't have enough hot gas.

Q394. It didn't have enough hot gas?

A. Our plants today are all automatic. We never touch them. It goes through that cycle itself twice a day, twice every twenty-four hours, it goes through the cycle of defrosting.

Q395. With hot gas? A. With hot gas. [1027]

Q396. Did you ever determine the temperature rise in the room during any such process of defrosting?

A. Around ten degrees.

Q397. You would get a ten-degree temperature rise in the room during such defrosting? A. Yes.

(Deposition of Fred L. Trullinger)

Q398. Did you ever measure the temperature of the room, any change in temperature of the room, when you state that you used water to defrost? A. No.

Q399. You don't know whether there was any temperature rise or loss at all? A. I don't know.

Q400. You never tried that out?

A. Nowadays we have automatic registers that register every degree of temperature for the whole week, seven days a week, twenty-four hours a day, so we know we can just go there and we can point to every defrost right down the line.

Q401. That is in the present installation?

A. Yes.

Q402. But you had no such—

A. We had no such installations in those days.

Q403. Nor do you have on the Yamhill job at the present time?

A. Not an automatic defroster. [1028]

Q404. Nor an automatic temperature control?

A. No.

Mr. Lyon: Q405. How many locker plants do you operate or control or own at the present time?

A. Well, I own just one, but my son owns four.

Q406. Two of those use a hot gas method of defrosting. What do the other two use.

A. They are using hot air.

Q407. You use no other system?

A. No other system to defrost.

(Deposition of Fred L. Trullinger)

Q408. You stated that before you made this installation at Yamhill you were acquainted with other locker plants in Oregon and Washington; is that true?

A. Not acquainted with the plants, but I knew of the idea of locker plants. In those days it was a new thing. People didn't know much about it.

Q409. You had never been to any of those plants and inspected them?

A. Oh, yes; I went and looked at them.

Q410. What ones did you look at?

A. I went and looked at one at Ellensburg, Washington, and I looked at one at McMinnville.

Q411. Any others?

A. I don't think so. There was one out at Aurora that I looked at. [1029]

Q412. Any others? A. No, that was all.

Q413. Did you look at one out at Woodland?

A. Woodburn. Not Woodland; Woodburn. That is the Aurora plant. I mean it is just out of Woodburn, toward Aurora. You know that plant along the highway?

Q414. No, I am asking you.

A. Well, I am telling you it is just right out of Woodburn toward the Aurora country.

Q415. Who operates that plant?

A. I don't know.

Q416. Who had operated it that time?

A. I don't know that. I just went and looked at the plant. I don't know what he used for defrosting. I haven't any idea. I didn't know there was such a thing in those days. That was all new to me.

(Deposition of Fred L. Trullinger)

Mr. White: Q417. About when was that, Mr. Trullinger?

A. That was back in 1935, the first part of '36.

Mr. Lyon: Q418. Before this installation was made you did not inspect the plant at the Woodland Locker Company? A. Woodland?

Q. Yes. A. I don't know such a company.

Q419. You don't know such a company. You never inspected an installation made and operated by Mr. Rhodes? [1030] A. Rose?

Q420. Rhodes. A. No.

Q421. You don't know Mr. Rhodes?

A. I don't know him.

Q422. Do you know a man by the name of Bud Sprague?

A. Bud Sprague? No, I don't know him.

Q423. You never saw him?

A. Not that I know of.

Q424. He didn't endeavor to sell you on this particular job?

A. Well, as I said before, there was a number of people trying to sell me, but I don't know who they were. There was the Harris Ice Machine Company; there was the Frigidaire people; that is, at that time it was the U. S. Electric or the U. S.—well, it was this electric company over here on Everett Street. There was several companies that tried to sell us.

Q425. You don't remember Mr. Sprague at all?

A. Sprague?

(Deposition of Fred L. Trullinger)

Q426. Yes.

A. I think I remember that name. I don't know just who he was, but I think he was with the Sunset Electric Company. He put in a quick-freeze plant for me later.

Q427. Where? [1031] A. At Yamhill.

Q428. At Yamhill? A. Yes.

Q429. Where is that with reference to this particular plant? A. The same plant.

Q430. In the same plant?

A. In the same plant, yes.

Q431. In the same building?

A. In the same building.

Q432. Where is that from this particular locker room?

A. That was off to the side. It was built in a separate room entirely, and we put in cold plates, freeze plates, and they supplied the plates and sent the men out to install it. I built the box myself out there.

Q433. How long was that after the locker room was built?

A. Oh, that was several years. It must have been three or four years after the plant was put in.

Q434. Have you explained the full operation that you performed and every step you took in turning on the water that you stated you spread over the diffuser in carrying out those operations?

A. Well, I may have made a misstatement, but I think I covered every move that I made.

Q435. You have covered every move that you made? [1032]

A. I think I did. I am not certain as to that, because, you know, in nine years a fellow like I am can forget. I

(Deposition of Fred L. Trullinger)

might have done something there that I didn't tell about. But so far as my recollection goes, we first turned on the water down at this stop and waste proposition after we closed the door to keep the cold from coming in. We wanted to hold it away from the freezing end as far as we could, so this was set out in the other room, which was not cold. But we wanted to cut off the cold from the locker room, from this machine, when we ran the hot water down through there, because we didn't want it to freeze in there. It wasn't hot water; it was just water. Then the water just naturally ran out the drain pipe. There was nothing to touch there. We would observe that by looking down onto the—we had a peephole; I forgot to tell you that. We did have a hole bored in the wall where we could look in and see what the water was doing on the top. But I am not certain about that, because my recollection is that we looked at the bottom always to see whether it was free of ice. And when it was free of ice at the bottom, why, it was cleared out because it melted from the top down. We have a plant just like that out at Multnomah today that we use hot air. Sometimes the hot air fails to go through. Then we pour cold water by bucket. We pour it in above, and when it melts down through then we look at the bottom on the outside, look through this hole, and when the waste is cleared away then we know that [1033] the thing is free.

The Court: I am a little confused. He said he got on his hands and knees and looked underneath. How could he? There was a wall around there, according to the testimony. He couldn't do that, could he?

Mr. Lewis Lyon: No, your Honor.

(Deposition of Fred L. Trullinger)

Mr. White: As I recall, that point of observation would be in the locker room.

Mr. Lewis Lyon: No, it couldn't be. There was a wall there.

Mr. White: Well, there was a hole in the wall.

Mr. O'Hearn: That is right, your Honor.

Mr. White: And you can look through the hole in the wall and see what is in the unit.

Mr. Lewis Lyon: That hole would not be next to the little triangular piece that he said he moved sideways.

The Court: But they built an insulated wall all around there.

Mr. Lewis Lyon: That is right.

The Court: And had a lever going through there, which they agitated?

Mr. White: Yes, but the unit receives its air from the locker room.

The Court: You weren't here last week. That "yes, but" business belongs to another witness. [1034]

Mr. White: The testimony shows that the unit was placed adjacent to the wall separating the chill room and the locker room. That wall contained openings, one for the reception of warm air, relatively warm air from the locker room into the bottom portion of the diffuser, and another opening from which the cold air was discharged from the diffuser back into the locker room. So, therefore, quite independently of the enclosure, the insulated enclosure referred to, as such, about the unit, it is possible—

The Court: Was that developed by the testimony some place?

Mr. Lewis Lyon: No.

(Deposition of Fred L. Trullinger)

Mr. White: Yes, by Trullinger.

The Court: It hasn't come out yet, up to now. The previous witness testified that he looked through the little diamond opening in the metal side, and if necessary he would look underneath, that he could see the whole length, and it defrosted.

Mr. White: That is right.

The Court: But this witness testified he got down on his hands and knees and looked underneath.

Mr. White: Yes, through, I believe, the air inlet.

The Court: He didn't say through the air inlet. At least, if he did, I don't remember it. I tried to follow his testimony because I was wondering, in view of the testimony concerning this insulated wall—the diagram shows the [1035] insulated wall—how he could do that. But you may proceed.

Mr. Lyon: Q436. You have explained every operation that you performed in carrying out that defrosting operation as you state you performed it?

A. I think that covers the whole thing, except taking hold of this lever. I have told you that, though. I explained that. We moved the lever back and forth in just this way. We moved it quite a while; we would move it over here a while and over here a while. That would throw the water.

Q437. You performed that operation yourself without any help from anybody else?

A. Why would I need any help?

Q438. Well, just answer the question, please. I am not asking you whether you needed any help or not.

A. Oh, I see. Yes, I did it without any help.

(Deposition of Fred L. Trullinger)

Q439. Without any help from anybody else?

A. Absolutely.

Q440. You have told me of every operation you performed?

A. Well, I might have done something else around there, too, that I haven't told you about. I don't know what it was.

Q441. Can you think of anything else that you did?

A. We will put away meat in people's lockers for them, and I built a stepladder one time.

Q442. I mean about carrying out this defrosting operation [1036] that you say you performed.

A. I objected strenuously to their hot gas business, and that is why they had to do this. I did that, all right, because it didn't do the work, the hot gas. Otherwise I think I have covered every move that I made.

The Court: Is there any redirect?

Mr. White: Yes, your Honor. We offer the redirect, without reading it, your Honor.

The Court: Without reading it?

Mr. White: Yes, your Honor.

The Court: Very well.

Redirect Examination

By Mr. White:

Q443. Mr. Trullinger, you were questioned on cross examination about looking into the unit to observe the coil or the fins, and specifically with respect to the presence or absence of any ice on them; is that right?

A. Yes.

(Deposition of Fred L. Trullinger)

Q444. Do you recall looking into the unit when water was flowing down?

A. Yes. You saw the water come down through when you looked underneath.

Q445. And what effect on that water would the fan that you have spoken of have?

A. The what? [1037]

Q446. The fan. What effect on the water would that fan have? A. Well, the fan wasn't moving.

Q447. The fan wasn't moving? A. No.

Q448. Why not?

A. Well, we would shut it down. The fan was all shut down. The refrigerant, the freezing part, that was all shut down. We would just shut the machine down. I am talking about defrosting. We used the water. That was all there was to that. The fan wasn't operating nor neither was the plant itself. In defrosting you closed that down always, every time. All the plants do that.

Q449. When was the fan shut down?

A. Well, it was shut down before we started to use the water.

Q450. On your answer to a question on cross examination you stated, as I recall, that you may have been incomplete in your answers concerning this operation. There seems to be some confusion. Will you please start at the beginning of what would be a water defrosting operation and tell us step by step what you did.

Mr. Lyon: That is objected to as already asked and answered several times on direct examination and on his cross examination. [1038]

(Deposition of Fred L. Trullinger)

Mr. White: I wish to clarify the record in this respect.

A. Well, you understand—if I had understood that shutting down the plant had anything to do with the water defrosting—we certainly shut the plant down, but that has nothing to do with the water itself.

Mr. White: Q451. All right. Mr. Trullinger, let's assume that you decided to defrost the coil. Now will you start and tell me step by step just what you did.

Mr. Lyon: That is objected to as not proper redirect examination.

A. The first thing, we shut the plant down; that is, we shut the pump off that pumped the refrigerant through. We shut that down. We threw the switch that runs the fan. The whole thing is dead. Then we start to defrost. Now I started at defrosting; not before, because that is not in the defrosting part at all. Defrosting commences when I go down and turn the water valves on.

Q452. By that you mean in the basement?

A. Down in the basement. I reached up there and turned that.

Q453. All right. Then what do you do or what did you do after that?

A. Went up and took ahold of this lever and moved it as the water ran down through, and it melted the ice off.

Q454. For approximately how long did you do that? [1039]

A. I think it took about twenty-five or thirty minutes. That is about the usual time, if I remember right. Sometimes it took more time. I know with the air we would give it sometimes more than that.

(Deposition of Fred L. Trullinger)

Q455. Then what did you do after you finished operating the spray pipe?

A. Well, we closed the spray pipe off and started up the machine and let it run.

Q456. You had to go back to the basement to close it off? A. Oh, yes.

Q457. Then what did you do after you closed the valve?

A. Well, we went up and opened this door so the air would pass through and turned on the machine.

Q458. Now, you spoke formerly of letting the water back out of the pipe. When was that done?

Mr. Lyon: That is objected to as leading.

A. When we closed the valve downstairs. We went down and closed the valve, and it automatically leaked out. We didn't do anything there. That stop and waste works automatically.

Q459. Now the water drainage to which you refer was accomplished by what part of the valve as we see it in Exhibit Y-15? A. Right here (indicating).

Mr. Lyon: That is objected to as leading and suggestive [1040] and not proper redirect examination; grossly leading.

Mr. White: Q460. Will you mark the part to which you have just referred by the letter "V", please.

A. (Witness marked on photograph as requested.)

Q461. Now you say that that was opened to let the water out?

A. It opens automatically. When you close the valve the waste always opens. That is automatic. It won't open until you do close the valve.

(Deposition of Fred L. Trullinger)

Q462. Now counsel in the cross examination referred to what appears to be a hole.

A. That is this hole here (indicating).

Q463. That is this hole?

A. I don't think he referred to that. I didn't so understand it.

Q464. Now that hole appears where with relation to this elbow immediately beyond the stop and drain valve?

Mr. Lyon: That is objected to as not redirect examination.

A. I think that this is it right through here: and I think, as a matter of fact, that the drain pipe came through the same hole. If you will notice, that is a big long hole for two pipes.

Q465. For two pipes?

A. Yes, the drain pipe. It came down—we didn't want to have too many holes through the floor, because we would let [1041] the cold out, so that was all insulated.

Q466. Now, you have spoken of two drain pipes.

A. This is the pipe that sent the water in, and the drain pipe is this one that is shown over here, coming out.

Q467. The pipe that sent the water in there, that sent the water in to the spray pipe; is that right?

A. That is right.

Q468. And the other pipe drained the water out?

A. That is right.

Mr. Lyon: That is objected to as leading.

The Witness: It still does, even with the air.

Mr. White: I should like to offer as Plaintiff's Exhibit Y-19 the ledger, and particularly page 184 of the

(Deposition of Fred L. Trullinger)

same, to which the witness has previously referred in his testimony. One further question regarding this:

Q469. Were these entries made at the time when the transactions which they represent occurred?

Mr. Lyon: That is objected to as leading, grossly so; not redirect examination.

A. They were, approximately.

Mr. Lyon: Are you offering this ledger at the present time?

Mr. White: Yes.

Mr. Lyon: If you are, I will state my objection to it. I didn't understand you were offering it. I object to it on [1042] the ground it is incompetent, irrelevant and immaterial; that there has been no foundation laid for the offer; merely a self-serving declaration, and not a document kept in the regular course of business.

Mr. White: The witness has testified that—

Mr. Lyon: There is no use arguing it.

Mr. White: —the notations were made by him in his handwriting at the time of the transactions which they represent.

(The ledger above referred to, at page 184, was thereupon marked by the Notary Plaintiff's Exhibit Y-19 for identification.)

Mr. White: Anything further?

The Court: Is there any recross?

Mr. Lewis Lyon: Yes, your Honor. I will offer the recross examination. There may be some particular points which I desire to call to your Honor's attention, without reading it all, particularly the proposition on page 91, be-

(Deposition of Fred L. Trullinger)

ginning with question 475 concerning the draining of the unit. The question was:

“Q. You didn’t have to wait for the water to drain out?

“A. No.

“Q. You just turned the machine right on?

“A. Turned the machine right on as soon as we knew the water stopped.” [1043]

Also, the answer:

“Sometimes it took twenty minutes to defrost; sometimes it took fifteen minutes; whatever it took.”

I believe anything else that is material in the recross examination can be referred to on argument, your Honor.

Mr. White: In the recross examination, your Honor, I would like to read one question and answer which preceded that which Mr. Lyon read.

The Court: All right.

Mr. White: Q471 on page 90:

“Q. You have stated that before you put this insulating wall up here that the structure was unsatisfactory and you could not defrost; is that correct?

“A. We could defrost. No; I didn’t say that. We could defrost, all right; but it froze the meat in there. It got cold in there between defrosts all the time. It was too cold. We didn’t want it so cold in the cool room, so we put in this insulation to stop that.”

Mr. White: And then we also offer the redirect examination on page 94.

The Court: All right.

(Deposition of Fred L. Trullinger)

Recross Examination

By Mr. Lyon:

Q470. How long was it after you said that you turned off the fan and the refrigerating machine, as you have expressed it, [1044] before you turned on the water?

A. Oh, I would say maybe a minute. It doesn't take but a moment to go downstairs and turn it; we could do it in a minute.

Q471. You have stated that before you put this insulating wall up here that the structure was unsatisfactory and you could not defrost; is that correct?

A. We could defrost. No; I didn't say that. We could defrost, all right; but it froze the meat in there. It got cold in there between defrosts all the time. It was too cold. We didn't want it so cold in the cool room, so we put in this insulation to stop that.

Q472. How long was it after you stopped the water before you turned the machine on again?

A. Well, it wouldn't be but a few minutes, because we didn't want to leave the machine standing still any longer than we had to.

Q473. How long was it, actually?

A. Oh, I would say a minute.

Q474. Just as quickly as you could, or didn't you leave time for the water to drain out?

A. The water would run right out. The water was going out just as fast as it would drip down; it went right down the pipe and out below. There was no stoppage of the water.

Q475. You didn't have to wait for the water to drain out? [1045] A. No.

(Deposition of Fred L. Trullinger)

Q476. You just turned the machine right on?

A. Turned the machine right on as soon as we knew the water stopped. When the water stopped we knew she was defrosted.

Q477. How long did it take the water to get out? That is what I am trying to ask you.

A. Sometimes it took twenty minutes to defrost; sometimes it took fifteen minutes; whatever it took.

Q478. Did you ever time the period of time?

A. Maybe not every time, but we defrost nowadays in about fifteen or twenty minutes. It is the same in all plants. It doesn't take long.

Q479. You defrost now not by using water, do you?

A. No, we use hot air, but even with air it takes about fifteen or twenty minutes to pull that air out to defrost.

Q480. You have no recollection or you never timed the water defrosting operation then?

A. Well, if I did I have forgotten. It is a long time ago.

Q481. It is your recollection that it takes just as long to defrost with gas as it did for you to carry on the defrosting operation that you say you performed at Yamhill?

A. We didn't have gas. We didn't use gas. It didn't [1046] work; it didn't defrost.

Q482. I mean at the present time where you are defrosting with gas, it takes just as long?

A. That is automatic. No, I wouldn't say that. The gas, I think, takes possibly fifteen or twenty minutes; maybe only ten minutes. It comes on and off, and we never know that.

(Deposition of Fred L. Trullinger)

Mr. White: This line of examination is objected to as incompetent, irrelevant and immaterial. Any comparison between present-day methods of hot gas defrosting and the water defrosting system to which the witness has testified is entirely irrelevant.

Mr. Lyon: Q483. Can you say that it takes longer or greater or less time to defrost using hot gas than it does with the water?

Mr. White: Same objection.

A. I couldn't say.

Mr. Lyon: Q484. You never timed the water?

A. We just did it until it was done. One day it might take a long time, and the next day it might not take near as long.

Q485. How often was the plant defrosted using water?

A. When we started, ^{about once a week.} because we had very few cus-

Q486. About once a week? A. Yes.

Q487. You got a satisfactory operation of the plant by [1047] defrosting once a week?

A. When we started, because we had very few customers. Today we have to defrost every other day, with the load we carry.

Q488. How often do they defrost using the hot air method now? A. Oh, every other day.

Q489. Every other day. They don't have to do it any oftener than every other day?

A. Oh, they might do it this kind of weather every day.

Q490. Do you know whether they do or not?

A. I know they do up here at our big plant here in town.

(Deposition of Fred L. Trullinger)

Q491. But you don't know when they defrost down there? A. No, I never saw them defrost.

Q492. You never saw them defrost?

A. Oh, I have seen them defrost, but what I mean, I am not down there during the week. I go down Sundays. That is the day they don't defrost.

Q493. They don't defrost on Sundays?

A. Oh, they may in the morning before I get there.

Q494. But you haven't seen them? A. No.

Mr. Lyon: That is all.

Redirect Examination

By Mr. White:

Q495. You are speaking now of the defrosting [1048] that you have not actually seen; that is, the present warm air defrosting? A. Yes, that is right.

Mr. White: That is all.

Mr. Neave: Your Honor, I was thinking about a recess. We could probably save time by going over until tomorrow morning.

The Court: You have just two more depositions?

Mr. Neave: I think there are three.

The Court: Two or three depositions. All right. That will be your case, then?

Mr. Neave: No, we will have two witnesses.

The Court: Experts?

Mr. Neave: One of them is, yes.

The Court: All right. We will recess until 10:00 o'clock.

(Whereupon, at 4:35 o'clock p. m., September 24, 1946, an adjournment was taken until 10:00 o'clock a. m., September 25, 1946.) [1049]

Los Angeles, California, September 25, 1946, 10:00 o'clock A. M.

The Court: Ex parte?

The Clerk: No ex parte, your Honor. Further trial.

The Court: Proceed:

Mr. White: At this time we offer the direct examination of C. W. Eustice, and from that direct examination we have certain excerpts for reading into the record.

The Court: Very well.

Mr. White: First with reference to the matter of temperature conditions, page 103, starting with Question 68:

"Q68. Do you know what was the temperature in that room during the time the water defrost system was in use?

"A. I couldn't state that I know exactly, but we try to maintain it below ten above zero."

The Court: What is that room?

Mr. White: The preceding question, 66, your Honor, identifies that room as the locker room.

The Court: Now let me see if I understand the testimony up to now.

There are three rooms: there is the chill room, the locker room and the compartment where the freezing unit was.

Mr. White: That is correct, and we are here speaking of the temperature conditions existing in the locker room.

"Q69. Do you know whether you succeeded in maintaining [1054] it below ten?

"A. I know we did.

(Deposition of C. W. Eustice)

"Q70. How do you know?

"A. Well, because I watched it every day.

"Q71. Did that temperature condition exist while the water defrost system to which you have referred was in use?

"A. It did."

Now relative to the time that the water defrost was installed, referring to pages 105 to 109, starting at Question 82 on page 105:

"Q82. Did you use any other defrosting means for that Carrier unit during that time?

"A. No.

"Q83. Mr. Eustice, do you have any record here that will show when lockers in the locker room at the time the water defrost system was first used were made available to your customers?

"A. Yes.

"Q84. Will you produce that record, please. First, will you state what is the book which you have now opened.

"A. Well, it is a book containing the rentals of lockers which we have here.

"Q85. By whom were the entries made in this book?

"A. They were kept by me.

"Q86. Solely? [1055]

"A. Only, yes.

"Q87. The entries are in your handwriting?

"A. Yes, sir.

"Q88. Where has this book been in your possession?

"A. Right here in the store.

"Q89. For how long?

"A. 1936.

(Deposition of C. W. Eustice)

"Q90. And in your custody?

"A. Yes, sir.

"Q91. Referring to the book, will you indicate typical entries showing your making available to customers lockers in the locker room.

"A. Well, this particular locker here, No. 20, George Mayhew.

"Q92. You are now referring to page 12 of the book?

"A. Locker No. 20. He had originally signed up, on which he got a credit of a dollar for signing up. And that locker at the time was an eight-dollar locker, and he put merchandise into the locker at that time."

The court's attention is directed to the fact that we are here referring to Exhibit 20.

Mr. Lewis Lyon: Where are you referring to Exhibit 20?

The Court: Yes, I have it. Page 184.

Wait a minute. Page 12 of this other book, George Mayhew, is that right? [1056]

Mr. White: That is correct.

The Court: Very well.

Mr. White: Continuing:

"Q93. On what date was that?

"A. That was November 21, 1936, at which time he also paid the locker rental.

"Q94. Do you have other similar entries?

"A. Yes. I can take this one here on page 83. On November 11th, that is when the locker was installed, and it was charged against the party, B. F. Laughlin.

"Q95. November, 1936?

"A. Yes. But he paid for the locker in January; January 22, 1937.

(Deposition of C. W. Eustice)

"Q96. What do you mean, that he paid for the locker then?

"A. He paid for the rental of the locker.

"Q97. Does anything in that entry indicate that the customer was actually then using the locker?

"A. Yes.

"Q98. As of what date?

"A. January 22, 1937.

"Q99. Will you find one or two more entries, please.

"A. Well, here is a locker on page 88. The locker renter was J. S. Perkins, and he purchased the locker in January 1, 1937, and he paid for it on January the 21st, 1937.

"Q100. Do the payment dates have any significance with [1057] relation to the actual use of the lockers containing food?

"A. Well, it is pretty hard to say, a question of that kind. But nobody is going to put up any money unless they use a locker, and I am sure that everybody, when they paid this locker rent here on January 21, 1937—

"Q101. You are referring to Mr. Perkins now?

"A. Yes. He had some kind of merchandise to be frozen in the locker.

"Q102. Then was it or was it not your regular custom to make and receive these rental charges at the time the lockers actually went into use?

"A. Yes. We collected the money at the time that they took possession of the locker.

"Q103. When were the transactions in this book entered by you, the various entries which we see?

"A. Every month we would make charges against the locker and also enter the credits.

(Deposition of C. W. Eustice)

“Q104. You personally made those entries?

“A. Yes.

“Q105. Is it true that the book contains entries of a generally like character for various customers?

“A. For all customers.

“Q106. For all customers who used the locker room; is that correct?

“A. That is correct [1058]

“Q107. At the time these entries to which you refer were made, what defrosting system, if any, was used in the Carrier unit?

“A. The water system was used, as far as I know, at the time that I pointed out these items.

“Q108. You were here all the time?

“A. Yes, I know that they were used.

“Q109. When you say ‘they were used’—

“A. I am referring to the lockers that I spoke of here, those three lockers that I spoke of, the water system was in use.

“Mr. White: I wish to have this book to which the witness has just referred, and which is indicated on its binding as ‘Ledger,’ marked for identification as Plaintiff’s Exhibit Y-20.

“(The document referred to was marked Plaintiff’s Exhibit No. 20 for identification.)”

That is all.

Mr. Lewis Lyon: We will offer the cross examination of Mr. Eustice. There are certain points to which I desire to direct the court’s attention particularly, first of which appears on page 110, and I read beginning with Question 114, with this explanation: Prior to the time

(Deposition of C. W. Eustice)

that Mr. Eustice took the stand I called at this so-called Yamhill locker room and talked with Mr. Eustice, together with Mr. Jarvis. [1059]

"Q114. Isn't it a fact that you told me yesterday that the reason you changed this system over to the hot air was because the water defrost was unsatisfactory?

"A. This is the reason I told you that—

"Q115. First, you told me that, didn't you?

"A. Let's get along here.

"Q116. Yes, but first you told me that?

"A. Yes, I said it was unsatisfactory."

Continuing with Question 147 on page 115:

"Q147. I will put the question this way: Isn't it a fact, Mr. Eustice, that you told Mr. Jarvis and myself yesterday that you did not pay for this system until after it was converted to a hot air system for defrosting?

"Mr. White: Just a moment, counsel. When you say 'this system,' what system do you mean?

"Mr. Lyon: I mean this locker system, the whole system.

"Mr. White: Are you including the refrigerating equipment?

"Mr. Lyon: Yes.

"Mr. White: All the refrigerating equipment?

"Mr. Lyon: The Carrier unit.

"Mr. White: As it exists today?

"Mr. Lyon: As it exists today.

"A. We didn't pay for this system until we were satisfied that the Carrier system that we had installed here

(Deposition of C. W. Eustice)

main- [1060] tained the right temperature. As far as the water system was concerned or the hot air was concerned, that didn't enter into the thing. It was just a matter of paying for the refrigeration system that I told you yesterday.

"Q148. Well, you told me that you didn't pay for it because it was unsatisfactory, and then you told me that it became satisfactory when it was changed over to a hot air system; isn't that correct?

"A. I told you it was a better system after. I never told you it wasn't a good system before.

"Q149. You told me it was unsatisfactory?

"A. It was unsatisfactory, yes."

That is all the part of the cross examination that I desire to call to your attention.

Mr. White: I would like to read from the cross examination on page 114, starting at Question 144:

"Q144. It is also true, Mr. Eustice, that you told me yesterday that you never paid for this system because it was unsatisfactory; isn't that correct? You told me and Mr. Hy Jarvis down here that?

"A. I said we didn't pay for the system until we thought it was in workable order.

"Q145. That is, you didn't pay for it until after it was changed over to the hot air system?

"A. No. No, I didn't say that. [1061]

"Q146. Isn't that true?

"A. No, it was paid before."

(Deposition of C. W. Eustice)

I now offer the redirect examination and will read starting at the bottom of page 116, Question 154:

“Q154. Will you explain fully what you mean in stating that the system was not satisfactory.

“A. Well, when we defrosted with the water it would take off the frost on the coils, all right, but it would leave a film of water on it, and then we would go back into operation and it would freeze that film of water on the coils, and in a short time it would rebuild up again.”

That is all.

The Court: While you are on these depositions, I do not recall whether or not there was anything read into the record yesterday indicating the time when the insulated wall was built around the refrigerating unit.

Mr. Lewis Lyon: There isn't anything in the record to establish it, your Honor.

The Court: I remember the man who was testifying who did not remember when it went out.

Mr. Lewis Lyon: There isn't anything that was testified to as to when it went in.

The Court: Indicating it was soon or some time?

Mr. White: That is correct, your Honor, shortly after.

The Court: Shortly after the unit was installed. I got [1062] the impression—I do not know whether it is right—that that was done before he made the final payment. Now I do not know whether there is anything in the record to substantiate that or whether I am drawing an inference.

Mr. White: We will clarify that, your Honor.

C. W. EUSTICE,

was thereupon produced as a witness in behalf of the plaintiff herein and, having been first duly sworn by the Notary Public, was examined and testified as follows:

Direct Examination

By Mr. White:

Q1. Mr. Eustice, you are a resident of Yamhill?

A. Yes.

Q2. For how long have you been residing in Yamhill?

A. Thirty-six years.

Q3. Is it true that you are associated with Fred L. Trullinger in the business of operating the store and locker plant in which we are present here today in Yamhill?

A. I am.

Q4. For how long have you personally been engaged in the operation of the premises and in what capacity?

A. Well, since 1917 I have been manager of the store.

Q5. You have been the manager of it?

A. Yes. [1063]

Q6. Have you had anything to do with the equipment installed in the plant?

A. Yes.

Q7. Have you had anything to do with any refrigeration equipment here installed?

A. Yes, sir.

Q8. What has been your familiarity with such equipment?

A. What do you mean by that, Mr. White? Whether I know anything about refrigeration?

(Deposition of C. W. Eustice)

Q9. No, I mean who has supervised the maintenance and operation of this equipment.

A. Well, I have supervised the maintenance, but putting it in, why, it was a joint proposition between Mr. Trullinger and me.

Q10. With what regularity have you been here on the premises since 1917?

A. Practically every day and Sundays.

Q11. Does this plant have a locker room?

A. Yes, sir.

Q12. It now contains approximately how many individual lockers? A. Practically four hundred.

Q13. Is there a Carrier diffuser unit in that room?

A. Yes.

Q14. Do you have a pre-cooling or chill room? [1064]

A. Yes.

Q15. Is it a fact that it is directly adjacent to the locker room? A. Yes.

Mr. Lyon: I think we ought to let the witness testify. I object to the leading character of the examination.

By Mr. White:

Q16. Mr. Eustice, have you in past years used a system employing the Yamhill city main water for defrosting coils in this Carrier diffuser unit?

Mr. Lyon: That is objected to as leading; grossly so.

A. Yes, sir.

By Mr. White:

Q17. Where was this Carrier unit when the water defrosting system and equipment was used?

A. It was in the pre-cooler.

(Deposition of C. W. Eustice)

Q18. How many different systems, if you know, have you employed here using water for defrosting the coil in this Carrier unit?

Mr. Lyon: That is objected to as leading.

A. Just one.

By Mr. White:

Q19. That is the sole water defrosting system that has been in operation here; is that true?

Mr. Lyon: Same objection. [1065]

A. Yes.

By Mr. White:

Q20. Is that system still in use? A. No, sir.

Q21. Are all the parts of that water defrosting equipment still in existence?

Mr. Lyon: That is objected to as leading.

A. I don't know.

By Mr. White:

Q22. Do you know whether the system was dismantled? A. Yes.

Q23. Do you know whether there are certain remaining parts here in the plant?

A. Yes, there is.

Q24. Do you know where any other of the dismantled parts were put?

A. Well, they were stored in the basement and later disposed of.

Q25. Do you know what happened to them?

A. Well, Mr. White got the handle, a part of the gear, or some part of it.

(Deposition of C. W. Eustice)

Q26. Do you know of the existence today of any other parts other than what may still remain here and the part to which you just referred?

A. I do not. [1066]

Q27. Is it a fact that in April of this year you permitted and directed Messrs. Hulse, Broms, Trullinger and myself to search for all missing parts in the basement?

Mr. Lyon: That is objected to as leading and calling for hearsay testimony. Certainly the defendant and cross-complainant was not here at any such purported inspection.

A. Yes, sir.

By Mr. White:

Q28. Is it a fact that in your presence the search was made by the parties named in the preceding question, and that I showed you a short piece of pipe, one end of which was pivotally connected to an elongated metal strip with a handle on its end?

Mr. Lyon: That is objected to as grossly leading.

A. Yes, sir.

By Mr. White:

Q29. Have you personally searched for any missing parts of that system?

A. Yes, on April 3rd. That was the only time.

Q30. Did you find any parts other than those to which I have referred? A. I did not.

Q31. Do you know Mr. Anton Broms?

A. Yes, sir.

Q32. When he installed this plant, in 1936? [1067]

A. In 1936, when he installed this plant.

(Deposition of C. W. Eustice)

Q33. When you say "installed this plant" you mean what? A. This locker system.

Q34. And by the locker system you mean generally what component parts?

A. Well, the motors and compressors and everything; the Carrier and blowers and water defrosting. The whole thing in general.

Q35. Did Mr. Broms have any connection with that work? A. What do you mean?

Q36. The installation to which you referred.

A. Yes, he had charge of it.

Q37. Was he here on the premises?

A. He was.

Q38. Do you know Mr. C. W. Hulse?

A. Yes, sir.

Q39. When did you make his acquaintance?

A. When he sold us the equipment.

Q40. The equipment being the refrigeration equipment here? A. The Carrier system.

Q41. When was your first knowledge of the water defrosting equipment to which you have previously referred? A. When it was put in, you mean?

Q42. Yes.

A. When we installed the system. It was installed at [1068] the time we put in the system.

Q43. Were Messrs. Broms and Hulse connected with the installation of that system?

Mr. Lyon: That is objected to as leading.

A. Hulse was the salesman. He had no active part in it. Broms installed it.

(Deposition of C. W. Eustice)

Q44. But was Mr. Hulse present here at the time?

A. He was here at different times while the system was in use.

Q45. And what about the time of its first installation?

A. Well, I imagine it would be in October.

Q46. No, I mean was he here at the time of its first installation? A. Yes.

Q47. Mr. Eustice, I show you a photograph marked Plaintiff's Exhibit Y-18 for identification and ask you if you are familiar with what is there shown.

A. Yes; I recognize that.

Q48. What is it, please?

A. Well, the Carrier system, food lockers and the turkey.

Q49. Is that the Carrier unit now in the locker room?

A. Yes, sir.

Q50. Will you explain your familiarity with that turkey?

Mr. Lyon: That is objected to as immaterial, absolute- [1069] ly.

A. Well, that turkey was frozen in our locker system as one of the first products that we froze, and I marked it on November the 11th, 1936.

By Mr. White:

Q51. Is that the date which appears on the label in the photograph? A. Yes.

Q52. Is that the turkey now in the locker room?

A. Yes, sir.

Q53. And is that dated label now on the turkey?

A. Yes, sir.

(Deposition of C. W. Eustice)

Q54. Who placed the turkey in the room?

A. I did.

Q55. You did? A. Yes, sir.

Q56. Where has it been since November 11, 1936?

A. It has been in our locker room.

Q57. Constantly?

A. All with the exception of a month.

Q58. And where was it then?

A. It was in Amity, when Mr. Trullinger's son installed a locker system down there. We took it down there to show the keeping of the locker system.

Q59. Did you take it down there? [1070]

A. Yes, I took it down.

Q60. Did you bring it back?

A. No. Mr. Lorenzen brought it back the man that had charge of the locker system at Amity.

Q61. Do you recognize the writing or printing on that tag? A. I do.

Q62. Is that yours? A. Yes, sir.

Q63. Will you describe the condition of that turkey today?

Mr. Lyon: That is objected to as calling for mere opinion evidence; incompetent, irrelevant and immaterial.

A. Well, the turkey is dried out some, but it still holds its shape and body as we put it in there.

Q64. During your operation of this locker plant have you had occasion to observe the keeping qualities of the room? A. Yes, sir.

Q65. And you have inspected meat and produce that has been maintained in the locker room?

A. Yes, sir.

(Deposition of C. W. Eustice)

Q66. Mr. Eustice, approximately what is the temperature in that locker room today?

A. Well, it is a little less than ten; probably nine degrees.

Q67. Fahrenheit? [1071] A. Yes.

Q68. Do you know what was the temperature in that room during the time the water defrost system was in use?

A. I couldn't state that I know exactly, but we try to maintain it below ten above zero.

Q69. Do you know whether you succeeded in maintaining it below ten? A. I know we did.

Q70. How do you know?

A. Well, because I watched it every day.

Q71. Did that temperature condition exist while the water defrost system which you have referred was in use? A. It did.

Q72. And is it true or not that it so existed throughout the time that water defrost system was in use?

A. Yes, sir.

Q73. What type of defrosting system do you now employ? A. Warm air.

Q74. Can you give me your general recollection as to the least time within your memory that that water defrost system remained in operation here?

Mr. Lyon: That is objected to as not a proper method of proof; incompetent, irrelevant and immaterial.

A. I feel that it was in there over a year. Whether it was in a year and a half or—I am sure it was in there over a year. [1072]

(Deposition of C. W. Eustice)

Q75. With relation to November 11, 1936, the date on the turkey, what is your recollection of the length of time of its operation following that date?

Mr. Lyon: That is objected to as leading; grossly so. Also assuming a fact not in evidence.

A. I didn't follow you on that question.

By Mr. White:

Q76. Am I correct in recalling your former statement that the water defrost system was in operation on the date carried by the turkey label?

Mr. Lyon: That is objected to as leading; grossly so.

A. Yes, sir.

Mr. Lyon: And assuming a fact to which the witness has not testified.

A. Yes, sir; it was in operation at that time.

By Mr. White:

Q77. Do you recall whether the water defrost system was completely installed then? A. It was.

Q78. Was it then, in so far as your regard for the system was concerned, or was it not a satisfactory operation?

Mr. Lyon: That is objected to as calling for a conclusion of the witness.

A. It defrosted the system all right.

By Mr. White:

Q79. Then following that time, November 11, 1936, what [1073] is your best recollection as to the least time beyond that date that the water defrost system remained in operation?

Mr. Lyon: Objected to as already asked and answered.

A. I am sure it was in there a year.

(Deposition of C. W. Eustice)

By Mr. White:

Q80. Following that date?

A. Following that date.

Q81. And during that year did the water defrost system operate satisfactorily?

Mr. Lyon: Objected to as calling for a conclusion of the witness.

Mr. White: You may answer.

A. As far as defrosting, it was satisfactory.

Q82. Did you use any other defrosting means for that Carrier unit during that time? A. No.

Q83. Mr. Eustice, do you have any record here that will show when lockers in the locker room at the time the water defrost system was first used were made available to your customers? A. Yes.

Q84. Will you produce that record, please. First, will you state what is the book which you have now opened.

A. Well, it is a book containing the rentals of lockers which we have here. [1074]

Q85. By whom were the entries made in this book?

A. They were kept by me.

Q86. Solely? A. Only, yes.

Q87. The entries are in your handwriting?

A. Yes, sir.

Q88. Where has this book been in your possession?

A. Right here in the store.

Q89. For how long? A. 1936.

Q90. And in your custody? A. Yes, sir.

(Deposition of C. W. Eustice)

Q91. Referring to the book, will you indicate typical entries showing your making available to customers lockers in the locker room.

A. Well, this particular locker here, No. 20, George Mayhew.

Q92. You are now referring to page 12 of the book?

A. Locker No. 20. He had originally signed up, on which he got credit of a dollar for signing up. And that locker at the time was an eight-dollar locker, and he put merchandise into the locker at that time.

Q93. On what date was that?

A. That was November 21, 1936, at which time he also paid the locker rental. [1075]

Q94. Do you have other similar entries?

A. Yes. I can take this one here on page 83. On November 11th, that is when the locker was installed, and it was charged against the party, B. F. Laughlin.

Q95. November, 1936?

A. Yes. But he paid for the locker in January, January 22, 1937.

Q96. What do you mean, that he paid for the locker then?

A. He paid for the rental of the locker.

Q97. Does anything in that entry indicate that the customer was actually then using the locker?

A. Yes.

Q98. As of what date? A. January 22, 1937.

Q99. Will you find one or two more entries, please.

A. Well, here is a locker on page 88. The locker renter was J. S. Perkins, and he purchased the locker in January 1st, 1937, and he paid for it on January the 21st, 1937.

(Deposition of C. W. Eustice)

Q100. Do the payment dates have any significance with relation to the actual use of the lockers containing food?

A. Well, it is pretty hard to say, a question of that kind. But nobody is going to put up any money unless they use a locker, and I am sure that everybody, when they paid this locker rent here on January 21, 1937—

Q101. You are referring to Mr. Perkins now? [1076]

A. Yes. He had some kind of merchandise to be frozen in the locker.

Q102. Then was it or was it not your regular custom to make and receive these rental charges at the time the lockers actually went into use?

Mr. Lyon: That is objected to as leading.

A. Yes. We collected the money at the time that they took possession of the locker.

Q103. When were the transactions in this book entered by you, the various entries which we see?

A. Every month we would make charges against the locker and also enter the credits.

Q104. You personally made those entries?

A. Yes.

Q105. Is it true that the book contains entries of a generally like character for various customers?

A. For all customers.

Q106. For all customers who used the locker room; is that correct? A. That is correct.

Q107. At the time these entries to which you refer were made, what defrosting system, if any, was used in the Carrier unit?

(Deposition of C. W. Eustice)

Mr. Lyon: Objected to as calling for a conclusion of the witness. [1077]

A. The water system was used, as far as I know, at the time that I pointed out these items.

Q108. You were here all the time?

A. Yes, I know that they were used.

Q109. When you say "they were used"—

A. I am referring to the lockers that I spoke of here, those three lockers that I spoke of, the water system was in use.

Mr. White: I wish to have this book to which the witness has just referred, and which is indicated on its binding as "Ledger," marked for identification as Plaintiff's Exhibit Y-20.

(The ledger above referred to was thereupon marked by the Notary as Plaintiff's Exhibit Y-20 for identification, and the same is attached to and made a part of this deposition.)

The Witness: There may be things in there that I would like to keep.

By Mr. White:

Q110. You are referring to the loose sheets?

A. The loose sheets.

Q111. Are those sheets any part of the transactions to which you have referred? A. No.

Mr. White: You may cross examine. [1078]

(Deposition of C. W. Eustice)

Cross Examination

By Mr. Lyon:

Q112. Mr. Eustice, you changed over this system to the present hot air system, did you not?

A. Yes, sir.

Mr. White: What does counsel mean by "this system"?

Mr. Lyon: This so-called water defrost system.

Q113. When was that done?

A. Well, I can't recall, but it was in 1937 or the first part of 1938.

Q114. Isn't it a fact that you told me yesterday that the reason you changed this system over to the hot air was because the water defrost was unsatisfactory?

A. This is the reason I told you that—

Q115. First, you told me that, didn't you?

A. Let's get along here.

Q116. Yes, but first you told me that?

A. Yes, I said it was unsatisfactory.

Q117. All right. A. All right.

Q118. Now during the time that this was changed over how long did it take to change this system to a hot air system and move the Carrier unit from the chill room over into the locker room? How long did it take to change over to the hot air system? [1079]

A. Well, I think it would take maybe four or five days.

Q119. And what means did you use to maintain the locker room temperature during that period of change-over?

A. Our insulation is so that we didn't make any change at all.

(Deposition of C. W. Eustice)

Q120. How much did the temperature of the locker room raise during that period of four or five days that this change-over was being made?

A. Probably ten degrees.

Q121. Only ten degrees? A. Yes.

Q122. Up to what? A. Up to twenty.

Q123. You measured it, did you, at that time?

A. Well, I could watch it, yes.

Q124. You watched the temperature, and it only raised ten degrees? A. Ten degrees.

Q125. How big is that room?

A. I couldn't tell you exactly.

Mr. White: Just a moment. Let's have the witness' answer.

Mr. Lyon: "I couldn't tell you."

Mr. White: Did you not use the word "exactly"?

A. I couldn't tell you—well, that is as far as I [1080] went on that question.

By Mr. Lyon:

Q126. Do you know what the water pressure is on the water system here?

A. About sixty-five pounds.

Q127. That is, during 1936?

A. Just the same.

Q128. Just the same. The basement of this store is used as a general storage place for merchandise, is it not?

A. Yes, sir.

Q129. What kind of merchandise have you kept in there during 1936 and at the present time?

A. We have kept hardware and groceries.

Q130. A general grocery line?

A. General grocery line.

(Deposition of C. W. Eustice)

Q131. Including cereals, and so forth?

A. Never carried cereals—anything that wouldn't take moisture up. We carried some canned goods, soaps, but no cereals.

Q132. What else?

A. And hardware, building paper—I guess that would cover it all—pipe, steel pipe, galvanized pipe.

Q133. Bottled goods?

A. Some bottled goods; syrups, probably.

Q134. Any barreled goods? [1081]

A. Vinegar and oil.

Q135. Any other barreled goods?

A. No, not that I know of.

Mr. White: You are speaking now of storage in the basement?

Mr. Lyon: That is right.

Q136. How many lockers would you say were rented during this period of time when the unit was being defrosted with water?

A. About two hundred fifty.

Q137. During the entire period of time?

A. Yes.

Q138. You had records of food spoilage during that time, did you not? A. I never did.

Q139. You never had any?

A. Never had any at any time.

Q140. Never had anything spoil in the locker?

A. Not in the locker; no.

(Deposition of C. W. Eustice)

Q141. It is your recollection that this water defrost system was installed at the time the system was originally put in; is that correct?

A. No. They installed a gas system to defrost, but they figured that it didn't work, and I didn't know how or why or when—how it was worked, but before we put in any [1082] merchandise the water system was installed.

Mr. White: May I interrupt to clarify that answer.

Q142. When you say "they," Mr. Eustice, "they figured"—

A. I mean the engineers.

By Mr. White:

Q143. The people putting it in?

A. The people putting it in.

By Mr. Lyon:

Q144. It is also true, Mr. Eustice, that you told me yesterday that you never paid for this system because it was unsatisfactory; isn't that correct? You told me and Mr. Hy Jarvis down here that?

A. I said we didn't pay for the system until we thought it was in workable order.

Q145. That is, you didn't pay for it until after it was changed over to the hot air system?

A. No. No, I didn't say that.

Q146. Isn't that true?

A. No, it was paid before.

Mr. White: Just a moment. When you say "this system" are you referring to—

Mr. Lyon: To the entire locker system.

Mr. White: Are you referring to the system employing water for defrosting?

(Deposition of C. W. Eustice)

Mr. Lyon: We are referring to the entire locker system. [1083]

Mr. White: Counsel will have to clarify the question, then, because the witness has testified that different equipments were installed during the entire period of use of this locker room. Now are we referring to the time when the water defrost system was in or are we referring to a time when warm air was used for defrosting?

By Mr. Lyon:

Q147. I will put the question this way: Isn't it a fact, Mr. Eustice, that you told Mr. Jarivs and myself yesterday that you did not pay for this system until after it was converted to a hot air system for defrosting?

Mr. White: Just a moment, counsel. When you say "this system," what system do you mean?

Mr. Lyon: I mean this locker system, the whole system.

Mr. White: Are you including the refrigerating equipment?

Mr. Lyon: Yes.

Mr. White: All the refrigerating equipment?

Mr. Lyon: The Carrier unit.

Mr. White: As it exists today?

Mr. Lyon: As it exists today.

A. We didn't pay for this system until we were satisfied that the Carrier system that we had installed here maintained the right temperature. As far as the water system was concerned or the hot air was concerned, that didn't enter into [1084] the thing. It was just a matter of paying for the refrigeration system that I told you yesterday.

(Deposition of C. W. Eustice)

Q148. Well, you told me that you didn't pay for it because it was unsatisfactory, and then you told me that it became satisfactory when it was changed over to a hot air system; isn't that correct?

A. I told you it was a better system after. I never told you it wasn't a good system before.

Q149. You told me it was unsatisfactory?

A. It was unsatisfactory; yes.

Q150. Do you know a man by the name of Bud Sprague, also in the refrigeration business?

A. No, I don't think so.

Q151. You never met him?

A. Not as I know of.

Q152. On this job? A. I can't recall him.

Mr. Lyon: That is all.

Redirect Examination

By Mr. White:

Q153. Mr. Eustice, did you, in answer to Mr. Lyon's question, yesterday say to him that the water defrost system which, as you have testified, was used here in the plant, and according to your testimony starting in 1936 and thereafter, did you tell him that that water defrost system was not [1085] satisfactory?

Mr. Lyon: That is objected to as leading; grossly so.

A. I may have told him that it was not satisfactory, but I didn't go any further in telling him, because there was other details to the fact why it was not satisfactory.

Q154. Will you explain fully what you mean in stating that the system was not satisfactory.

A. Well, when we defrosted with the water it would take off the frost on the coils, all right, but it would

(Deposition of C. W. Eustice)

leave a film of water on it, and then we would go back into operation and it would freeze that film of water on the coils, and in a short time it would rebuild up again.

Q155. Did you personally observe the film of water on the coils? A. Sure.

Q156. Did you personally observe the result of the water defrosting operation or the condition of the coil after water defrosting? A. Yes.

Q157. Before water defrosting, I take it, there was an accumulation of ice on the coil or frost?

Mr. Lyon: Objected to as leading.

A. It would be iced, and also it would not take the frost off of the coils.

Q158. Just a moment. My question was— [1086]

Mr. Lyon: Just a moment. Let the witness finish his statement.

The Witness: All right. You fellows get together on that.

Mr. Lyon: Go ahead and proceed with what you were stating.

Mr. White: I move to strike the answer as not responsive to the question.

Mr. Lyon: You can't move to strike your own witness' answer.

By Mr. White:

Q159. Mr. Eustice, in order to clarify this, did you personally observe the condition of the coil just before you started to water defrost? A. I did.

Q160. How did that coil appear?

A. Covered with frost.

(Deposition of C. W. Eustice)

Q161. To what degree?

A. Well, there were fins to allow the air to go through, and that would practically close those air ducts through there.

Q162. Do you know whether that same coil is now in the Carrier unit? A. It still is.

Q163. Did you observe the condition of the coil after the water defrosting?

A. You mean with the water system? [1087]

Q164. Yes. A. Yes.

Q165. How did it then appear?

A. Well, it would take off the frost and the ice particles and bring it down to the coil, the bare coil, with the exception of a film of water that would stand on the coil.

Q166. While the equipment employed this water defrost system to which you have referred, did the system at any time fail to maintain the locker room temperature as you have described them previously in your testimony?

A. No, it always maintained our temperature.

Q167. Was the system then satisfactory from the standpoint of maintaining the desired locker room temperature?

Mr. Lyon: That is objected to as leading; grossly so.

A. Yes, it was satisfactory as far as defrosting was concerned.

Q168. I referred to the maintenance of the locker room temperature at the proper degrees. A. Yes.

Mr. White: That is all.

Mr. Lyon: That is all. [1088]

Mr. White: I will read into the record a stipulation entered into between counsel concerning the photographic exhibits:

“It is stipulated that Mr. Clifford G. Schultz, if called and sworn as a witness, would testify that in August, 1945, he was a resident of Portland, Oregon, and was employed as a photographer by the Photo Art Commercial Studios at 420 Southwest Washington Street, Portland, Oregon; that on August 21, 1945, he, accompanied by H. Calvin White, went to the Trullinger & Eustice Locker Plant at Yamhill, Oregon, and there took the photographs identified in Plaintiff’s Exhibits Y-14, Y-15, Y-16, Y-17, and Y-18, and that he observed the prints of the photographs that were made in said Photo Art Studios on that same day.” [1089]

Mr. Lewis Lyon: Where were you reading from?

Mr. White: I was reading from the Hulse deposition which sets that out. That was on page 43.

Mr. Lewis Lyon: That stipulation was entered into.

The Court: Approved.

Mr. White: A second stipulation, appearing on page 241 of the record following immediately before the notary’s certificate:

“It is stipulated that Mr. S. C. E. Smith, if called and sworn as a witness, would testify that he is and has been the owner and manager of the Congress Hotel at 1024 S. W. Sixth Street, Portland, Oregon, since before 1937 to the present, and that throughout that time all records of the hotel have been in his charge; that today he produced from those records two original registration cards of the hotel, offered and marked Plaintiff’s Exhibits Y-26

and Y-27 for identification, both bearing the dates October 7, 1937, and Exhibit Y-26 the handwritten names R. A. Masterson and Sam Jackson, and Exhibit Y-27 the names Mr. and Mrs. C. W. Hulse, Brown-Johnston Company; that the custom of the hotel has been to require its guests to sign all such registration cards, and that these exhibits, Y-26 and Y-27, are records of the hotel kept in the regular course of its business."

The Court: Approved.

Mr. White: At this time we will offer Plaintiff's [1090] Exhibits Y-4, Y-5, Y-6, Y-7, Y-8, Y-9, Y-14 through and including Y-22, Y-24, Y-26, Y-27.

The Court: That is Y-4, 5, 6, 7, 8, 9?

Mr. White: Then 14 through 22.

The Court: They are admitted.

(The documents referred to were received in evidence and marked Y-4, Y-5, Y-6, Y-7, Y-8, Y-9, Y-14 through Y-22 inclusive respectively Plaintiff's Exhibits.)

[Note: Plaintiff's Exhibits Nos. Y-4 to Y-9, Y-14 to Y-20 and Y-22 will be found in the Book of Exhibits at pages 1226 to 1228, 1231 to 1237 and 1238.]

The Court: What else?

Mr. White: Y-24.

The Court: Admitted.

(The document referred to was received in evidence and marked Plaintiff's Exhibit Y-24.)

[Note: Plaintiff's Exhibit No. Y-24 will be found in the Book of Exhibits at page 1239.]

Mr. White: Then Y-26 and Y-27. Those have been referred to in the stipulation.

The Court: The materiality of 26 and 27 does not yet appear.

Mr. White: No, that is correct, but I believe it will.

The Court: They are all admitted except those two. Do you raise the objection as to the materiality, to those two hotel registrations?

Mr. Lewis Lyon: They have not been shown to be material yet, your Honor.

The Court: I thought maybe you waived your objection.

Mr. Lewis Lyon: No, I think the offer is premature until there is some materiality shown as to those slips, and I [1091] object on that ground.

The Court: All right. The others are admitted as I have indicated. [1092]

Mr. Lyon: I understand you are not offering any of the deposition of Mr. Postlewaite, counsel?

Mr. White: Not at this time.

Mr. Lyon: Are you going to offer it at any time?

Mr. White: No.

Mr. Lyon: I think in order to get the full facts before the court, it is material to offer a portion of that deposition.

I will at this time offer the cross examination of Mr. Postlewaite.

Mr. Postlewaite was a witness called on behalf of the plaintiff. He was an ex-employee of the Electrical Products Corporation. At the time he was called he was doing business under the name and style of Western Engineering Company in Portland. He was an engineer, had been an engineer for the Electrical Products Cor-

poration and testified as to his experience with this so-called Trullinger & Eustice installation at Yamhill, Oregon.

The testimony that I desire to refer to shows several things: One, as brought out by the following testimony, that because of the positioning in use of this so-called Carrier diffuser unit the temperature always raised above freezing, so that there was no freezing problem when or if the device at any time worked satisfactorily, but he also testifies as to the difficulties that they had. [1093]

The Court: All right. You had better read it.

Mr. Neave: I think so.

Mr. Lyon: All right.

The Court: Now, have you fixed the time when he worked there? There are still some times that perhaps are not clear. It may be the counsel can straighten this out in my mind, that is, how long the hot gas system was in there before they put in the water system. Did this fellow have anything to do with the hot gas system, do you propose to show, or with the water system?

Mr. Lyon: He does not testify, and no witness testified, your Honor, as to the time that the hot gas system was used in the locker plant at Yamhill. No witness testified—

The Court: You mean, how long it was used?

Mr. Lyon: How long it was used. There is no witness that testified definitely as to any date of this first proposed change-over.

The Court: Does this fellow have anything to say about it?

Mr. Lyon: No, he doesn't, as to time.

The Court: All right. Go ahead.

Mr. Lyon: I will start reading, beginning with the cross examination, Question 121, page 205:

“Q. You stated, Mr. Postlewaite, that you carried out these operations of turning on the water”— [1094]

The Court: Are you offering his direct examination?

Mr. Lyon: No, I am not, your Honor.

The Court: How can you have any cross examination if there isn't direct examination?

Mr. Lewis Lyon: I think the facts he brings out on cross examination are material in themselves.

The Court: You are offering it then as your direct examination, on behalf of the defendant?

Mr. Lewis Lyon: Yes, I will have to do that.

The Court: All right.

Mr. Lewis Lyon: —at the present time, in view of the fact that plaintiff does not see fit to rely in any way upon the testimony of this witness.

Mr. Neave: That was said, your Honor, before Mr. Lyon determined that he was going to offer any of it.

Mr. Lewis Lyon: Continuing the reading of it, Question 121, at page 205:

“Q121. You stated, Mr. Postlewaite, that you carried out these operations of turning on the water to try to remove the ice from the coils on this Carrier diffuser. How long did you let the water run?

“A. Oh, I timed it as long as fifteen minutes.

“Q122. As long as fifteen minutes. Never any longer?

“A. When the water pressure dropped, yes, I had [1095] to wait longer. I have waited sometimes as long as forty minutes.

(Deposition of Mark A. Postlewaite)

“Q123. And sometimes longer than that, didn’t you?

“A. Well, I may have and may not. I didn’t note the time.

“Q124. During that period of time the temperature inside of the diffuser raised to practically the temperature of the water, didn’t it?

“A. Well, no, I don’t think so. It might have. I couldn’t tell you that for sure.

“Q125. You never measured it?

“A. No, I never measured with a thermometer, no.

“Q126. But you know it raised considerably above freezing?

“A. It went above freezing when—well, you see, the cold diffuser was inside of the room once and was outside of the room once.

“Q127. Well, it was outside of the room at all times that this water was used?

“A. Outside of the locker room, yes. If this were the chill room, it is in the chill room here and all exposed; you can walk up there and put your hand on it. When you defrosted that way the sweat just rolled right off of it and it came right up to above [1096] freezing temperature.

“Q128. I mean when it was closed with this wall you put doors—

“A. So you could reach in.

“Q. (Continuing)—in front of the inlet and outlets so that you could close off circulation from the locker room to the diffuser, didn’t you?

“A. Yes, sir.

(Deposition of Mark A. Postlewaite)

"Q129. And kept the cold air from the locker room going into the diffuser during the time of your spraying water onto the coils?

"A. The door was put on there so that when you were not defrosting the air would not get in there from the locker room, into the space around the cold diffuser.

"Q130. Well, you had doors, inlet and outlet, that closed the wall opening into the diffuser from the locker room, too, didn't you? Or maybe you don't remember that.

"A. Wait a minute.

"There were doors into this insulated room compartment in which the cold diffuser was located, and those doors were always closed except when you were defrosting.

"Mr. Lyon: Q131. And also the diffuser outlet [1097] was connected through an opening in the wall in that cold room, wasn't it?

"A. That is right."

The Court: Isn't there anything to connect up this time? What I am trying to fix in my mind is the date when the insulated wall was put around there, because, as I see it at this stage of the proceedings, the insulated wall is an important part of that apparatus.

Mr. Lewis Lyon: There is no date.

The Court: He testifies here that the doors were in the insulated room compartments, so they must have had the insulated wall when he was there. Is there anything that shows **that**?

Mr. Lewis Lyon: There is nothing in the record.

(Deposition of Mark A. Postlewaite)

Mr. Neave: We will introduce evidence on that point, your Honor.

The Court: To show how long he was there?

Mr. Neave: No, to introduce—not through this witness, but through another witness—when that insulated wall was placed there.

The Court: Does this witness testify on his direct or cross examination—

Mr. Neave: I can't find it.

The Court: — how long he was working with Electrical Products? [1098]

Mr. Neave: Yes, sir, that is testified to.

The Court: All right.

Mr. Lewis Lyon: (Continuing reading):

“Q132. There was a door to close that outlet placed there, wasn't there, or a door to close that outlet and the inlet? There was both an inlet and outlet in that wall, wasn't there?

“A. Yes, but we didn't close that—I didn't close that door myself.

Q133. You never closed any of those doors?

“A. No, sir.

“Q134. You don't know whether there were doors there or not?

“A. Right now I couldn't tell you, in other words, that there were, because I was not interested in the thing from an experimental point of view. I was interested in seeing if I could get the plant to operate without—

“Q135. What you were doing—

“A. —trying to get the water to defrost. I was trying to get the water defrosting on its own legs.

(Deposition of Mark A. Postlewaite)

“Mr. Lyon: Q136. You were experimenting, weren’t you?

“A. I was trying to prove the operation of [1099] water defrosting.

“Mr. Lyon: Q137. As you stated, you were experimenting with it. That is why you went out there so often?

“A. I didn’t go out there with the idea of experimenting. You haven’t asked me why I went out, so all I can say is I didn’t go out with the idea of experimenting.

“Q138. You did state you went out to try to prove whether it would work or not, didn’t you?

“A. Well, I had already proved—

“Q139. Just answer that question, please.

“A. Well, I can’t answer it ‘Yes’ or ‘No.’ I don’t think I can, because I went out to see why somebody said it didn’t always work.

“Q140. You had those complaints that it didn’t always work?

“A. I had complaints that it didn’t always work.

“Q141. And those complaints came from the operator?

“A. That is right.

“Q142. And that operator was Mr. Eustice?

“A. Yes, sir.

“Q143. And any other operator?

“A. He had a meat cutter there at times. [1100] That fellow is dead now.”

“Q144. ‘You—’ That should be ‘who’—

“Who also complained that it didn’t work at times?

“A. He couldn’t work it at times.

(Deposition of Mark A. Postlewaite)

"Q145. He couldn't make it work?

"A. That is right.

"Q146. Now when is the first time that you saw this device had been removed and completely replaced?

"A. Oh, in the spring of '38.

"Q147. Now after the spring of '38—

"A. The spring of '39 or winter of '38-'39 we changed the water defrost."

The Court: Let me hear the last two questions and answers again. They discovered that it didn't work in the spring of 1938?

Mr. Lewis Lyon: Yes, sir.

Mr. O'Hearn: No, your Honor, he changed it.

The Court: No, he said that, and then he said something else. Let me hear the last two questions and answers again.

Mr. Lewis Lyon: (Reading):

"Q144. Who also complained that it didn't work at times?

"A. He couldn't work it at times.

"Q145. He couldn't make it work?

"A. That is right, [1101]

"Q146. Now when is the first time that you saw that this device had been removed and completely replaced?

"A. Oh, in the spring of '38.

"Q147. Now after the spring of '38—

"A. The spring of '39 or winter of '38-'39 we changed the water defrost.

"Q148. Now after this had been replaced did you continue to go out there at periods of two weeks to a

(Deposition of Mark A. Postlewaite)

month to find out whether the new system was operating or not?

"A. No.

"Q149. You didn't repeat this proposition of going out there every two weeks or a month after that?

"A. No.

"Q150. You are acquainted with Mr. H. T. Jarvis sitting here, are you not?

"A. I have seen him at times."

I will offer it all, but I don't feel it is necessary to read it at this time. Continuing with Question 157:

"Q157. As a matter of fact, Mr. Postlewaite, you do not of your own personal knowledge know that that job was ever paid for, do you?

"A. No, sir. I never handled the money."

Now, I will just offer the rest of the cross examination [1102] at this time, and reserve certain parts of the direct examination, that I may want to offer later, your Honor.

The Court: Very well. It is admitted.

Mr. White: Since the cross examination has been offered, the plaintiff will offer the direct.

The Court: As cross?

Mr. White: As direct.

Mr. Lewis Lyon: As direct, your Honor.

Mr. White: I will read two excerpts, one starting at page 181, at the bottom of the page, Question 6:

"Q6. Were you in 1936 associated with Electrical Products Consolidated?

"A. Yes.

(Deposition of Mark A. Postlewaite)

“Q7. Did you then engage in work having to do with the installation of a locker room plant at the Trullinger & Eustice store in Yamhill, Oregon?

“A. Yes.

“Q8. Do you recall generally the time when you engaged in that installation?

“A. Well, the job sold in the fall, and the equipment was about a week or two in coming. It came from Los Angeles, so that it was not installed immediately after it was sold. I remember the wait. The equipment was installed out there by Tony Broms working for me. [1103]

“Q9. That is Mr. Anton Broms?

“A. That is right.

“Q10. In what capacity did he work for you?

“A. He was an erection man, erection engineer, or if you want to call it erection fitter, a piping service man of that type.”

Now, on page 191, starting with Question 54:

“Q54. Was the unit visible in the chill room when first installed as you have described?

“A. When it was first installed, yes.

“Q55. Do you have any recollection of temperature conditions in that chill room at that time?

“A. Well, the temperature conditions at first were above freezing, just what was desired. At that time the lockers were not all sold, and later as the lockers became sold and the load became more on the cold diffuser equipment the apparent lack of capacity was complained of and the cold diffuser was housed in and insulated.

“Q56. Do you recall having made any observations that would indicate temperature conditions in the chill

(Deposition of Mark A. Postlewaite)

room at the time this diffuser unit was openly exposed in that room?

"A. I know that I set the thermostat at 35 degrees in this chill room. [1104]

"Q57. Do you know whether the chill room temperature was that high?

"A. Yes, I know that at times it was that high.

"Q58. And at this same time was that Carrier ceiling diffuser that you previously referred to in operation?

"A. Yes.

"Q59. Was the installation changed thereafter, to your recollection, while still using water for coil defrosting as you have described?

"Mr. Lyon: That is objected to as leading.

"Mr. White: Q60. You have previously testified that the diffuser unit was housed in and insulated. Will you explain how that housing and insulation was made.

"A. While the cold diffuser was not moved, a wall or insulated partition was built from the common partition wall between the two rooms around the cold diffuser from the floor to the ceiling, making a third room in which this cold diffuser was the only thing located in there. There was no other equipment in there.

"Q61. Was the interior of that third unit-containing room accessible?

"A. Yes. We could not get in there, but we [1105] could open doors and reach in.

"Q62. Did you observe the operation of this system after the unit was housed in as you have described?

"A. Yes.

(Deposition of Mark A. Postlewaite)

“Q63. Did you make observations of temperature conditions in the locker room?”

“A. Yes, the locker room controlled temperature—the thermostat was set to operate between 5 and 10 degrees Fahrenheit and did that. I observed it did that.

“Q64. Do you know what, when that temperature existed in the locker room, the temperature was in this third insulated unit-containing room?”

“A. I don’t know just what the temperature was, but I do know that water in there froze during operating periods. It must have been considerably below freezing.

“Q65. Where did water freeze in there?”

“A. On the sides of the unit, and on the floor where the sprays would splash out, the spray water would splash out through the connections.”

Mr. Lewis Lyon: I should like to continue reading from the point where plaintiff’s counsel stopped.

“Q66. Did you operate this water defrosting [1106] system in the manner previously described after the unit was enclosed within this insulated wall?”

“A. Yes, I operated it.

“Q67. Did you observe the results of its operation?”

“A. Yes, I know pretty well what I saw there.

“Q68. What did you see?”

“A. I saw that as long as the water supply was maintained in the main coming into the building the defrosting was as “Tony” Broms, or Anton Broms, had first anticipated, and that when the water supply was not maintained the defrosting did not occur or the de-icing did not take place, and I had another problem.

(Deposition of Mark A. Postlewaite)

“69. Was the water pressure adequate at times?

“A. It was adequate at times, but sometimes people would use the water on other places in the building and then the pressure would drop and the defrosting or de-icing would not take place, and as a result you could not be sure that ice was off.

“Q70. Would any de-icing take place when the water pressure was down?

“A. ‘It’—that should be ‘If’—If the pressure were reduced enough, other uses were large enough, the de-icing would drop to—did not occur [1107] at all. At other times when the pressure was just partially reduced, why, the de-icing was slow, very slow.

“Q71. But there was de-icing?

“A. As long as there was water there was de-icing.

“Q72. When higher water pressures existed what was the result of the de-icing operation?”

That question was reframed:

“Q73. Is it true that at times the water pressure was higher than on those occasions to which you last referred?

“A. At times there was sufficient water pressure on the mains to force sufficient water into the spray pipe to defrost or de-ice the coils in what I considered a satisfactory time.

“Q74. Did you observe the result of the de-icing operation at those times?

“A. There were times when there was sufficient water pressure that the ice was entirely removed from the coils, sufficiently so to produce a satisfactory cooling operation later.

(Deposition of Mark A. Postlewaite)

“Q75. Mr. Postlewaite, did water freeze at any time within your observation in either the perforated spray pipe or the hose connection with the valve in the [1108] basement?

“A. At one time while checking the time of defrosting the coil I found that the water pressure had been reduced sufficiently that the defrosting did not take place, and at that time I started to put the coil back into operation, trying to prevent the temperature in the locker room from getting too high. At that time the drain valve on the supply line to the cold diffuser was closed, and after the water pressure came back up we tried to open the valve in the supply line, which we did, and the water did not flow, so we had to get a torch and thaw it out.

“Q76. Did you encounter any similar situation at other times and at higher water pressures?

“A. Never—no, I can’t answer that ‘Yes’ or ‘No.’ When the drain valve was opened the water drained out and there was no freezing in the line. When the valve was closed, and there was sufficient water, the operation took place and there would be no freezing in the pipe.

“Q77. And that is true within your personal direct observation of the operation of the system?

“A. I went out there a number of times due to the complaint of the operator trying to check on him [1109] to see if he was defrosting correctly. I think I know more about that because I understand it pretty thoroughly.”

That is the part I wanted to call the court’s attention to at the present time.

The Court: All right. You offer all of the direct and all of the cross now, that is, everybody offers everything?

Mr. White: Yes.

Mr. Lewis Lyon: Yes.

MARK A. POSTLEWAITE,

was thereupon produced as a witness in behalf of the plaintiff herein, and, having been first duly sworn by the Notary, was examined and testified as follows:

Direct Examination

By Mr. White:

Q1. Mr. Postlewaite, you are engaged in business under the name Western Engineering Company at 2105 Southeast Ninth Avenue here in Portland?

A. That is right.

Q2. What is the nature of that business?

A. Well, we engineer, sell, install and service refrigeration equipment, air conditioning equipment.

Q3. How long have you been engaged in that type of business? A. Oh, since 1925. [1110]

Q4. During the course of years from 1925 to the present have you done refrigeration engineering work?

A. That is right.

Q5. Will you indicate briefly the scope and nature of your work?

A. Well, I worked in Los Angeles from '25 to '28 as assistant engineer and as chief engineer for Baker in Los Angeles from '28 to '30, and from '30 to '35 I was chief engineer for Baker in Seattle. I opened their branch here—not their branch, but their shop. I opened their shop, hired their men, and started as foreman there and

(Deposition of Mark A. Postlewaite)

was still foreman until I put a fellow in charge of the shop. From then on, after I left there, I was first in charge of the Portland office for Electrical Products, handling Carrier Corporation products, air conditioning and refrigeration equipment. I went to work for them in September, 1936, and I was with them until the following August, and then I was with Carrier from the following August; that is, August, 1937, to December, 1938. In December, '38, Western Engineering was formed. We have been operating as Western Engineering in this neighborhood ever since.

Q6. Were you in 1936 associated with Electrical Products Consolidated? A. Yes.

Q7. Did you then engage in work having to do with the [1111] installation of a locker room plant at the Trullinger & Eustice store in Yamhill, Oregon?

A. Yes.

Q. Do you recall generally the time when you engaged in that installation?

A. Well, the job sold in the fall, and the equipment was about a week or two in coming. It came from Los Angeles, so that it was not installed immediately after it was sold. I remember the wait. The equipment was installed out there by Tony Broms working for me.

Q9. That is Mr. Anton Broms?

A. That is right.

Q10. In what capacity did he work for you?

A. He was an erection man, erection engineer, or if you want to call it erection fitter, a piping service man of that type.

(Deposition of Mark A. Postlewaite)

Q11. Do you recall the general parts of the Trullinger & Eustice plant in connection with which this system was installed?

A. Well, there were two machines, two ice machines, one ice machine on one floor in the chill room or pre-cooling room and another machine—we called them cold diffusers or blowers in the locker room.

Q12. Where was the chill room with relation to the locker room? [1112]

A. The chill room was adjacent, and I understand from when I was out there last, as I remember, it is still adjacent to the locker room, right next to it.

Q13. In what room was the Carrier diffuser?

A. Both Carrier diffusers were in the chill room, the high temperature room.

Q14. Then you referred to the ceiling unit also as a Carrier diffuser? A. That is right.

Q15. I hand you a paper on the back of which is entitled "Western Engineering Company," and clear at the bottom "Portland, Oregon," and will ask you to compare the machine represented on page 2, having the blue background, with the Carrier diffuser unit—not the ceiling mounted but the other unit—which you say was installed in the pre-cooling or chill room?

Mr. Lyon: That is objected to on the ground that the witness has not been qualified to answer the question.

Mr. White: Q16. Did you not testify, Mr. Postlewaite, that you have had familiarity in the past with Carrier equipment?

Mr. Lyon: That is objected to.

Mr. White: I am wrong. I am sorry. I will endeavor to correct myself.

(Deposition of Mark A. Postlewaite)

Q17. Mr. Postlewaite, have you in the past had occasion [1113] to become familiar with Carrier refrigeration equipment?

Mr. Lyon: That is objected to as immaterial.

A. You mean previous to now?

Q18. Yes.

A. Well, I think that I know Carrier equipment better than anybody else in the Northwest. I think I am familiar with this. I think I could take it apart and that I could make the thing.

Q19. For how long have you been familiar with Carrier equipment?

A. How long have I? Well, 1937—or 1936, in fact.

Q20. Do you recognize the machine shown on the paper which you now hold?

A. It is very similar to the one out there, with one difference. It has two fans instead of three. It is a smaller unit.

Q21. You mean the unit at Yamhill has two fans?

A. Two fans instead of three shown in the picture.

Q22. How does the top structure in the picture compare with the corresponding part of the Yamhill installation?

A. It is the same. There are two outlets.

Q23. There are two outlets, and the picture here shows how many? A. Three.

Q24. Does the Yamhill diffuser contain a part corresponding [1114] to the section indicated in the picture as "Seamless copper coil with aluminum fins for Freon"?

A. Yes.

Mr. White: We would like to have this marked as Plaintiff's Exhibit Y-25.

(Deposition of Mark A. Postlewaite)

Mr. Lyon: Objected to on the ground it is neither properly proven nor identified, and an improper method of proof; incompetent, irrelevant and immaterial.

(The printed folder above referred to was thereupon marked by the Notary Plaintiff's Exhibit Y-25, for identification.)

Mr. White: Q25. Incidentally, do you happen to know whether the diffuser unit as installed at the Yamhill plant is still in the plant?

A. Yes, the last time I was out there.

Q26. That was how recently?

A. Oh, a year ago last July.

Q27. Will you describe the parts of the refrigerating equipment installation made in this Yamhill plant which were used for the purpose of cooling this locker room? I am speaking now, Mr. Postlewaite, as of the time when the installation was first made.

Mr. Lyon: That is objected to on the ground the witness has not been qualified to answer the question.

Mr. White: Strike the question. [1115]

Q28. Were you present at the time when the installation was made?

Mr. Lyon: That is objected to as leading and suggestive.

Mr. White: You may answer.

A. Yes, I was there. I superintended the opening of the boxes and the placing of the equipment, and I instructed Mr. Broms with sketches and with my hands as to where I wanted the pipes to run and the controls to go. Is that the answer you mean?

(Deposition of Mark A. Postlewaite)

Q29. Yes. Now will you describe how the installation was made pursuant to your supervision.

A. The cold diffuser or blower was located in the chill room next to a partition wall between the chill room and locker room. Holes were cut in this partition near the floor for the return air to come into the cold diffuser, and near the ceiling holes were cut for the supply air from the cold diffuser into the locker room. In the basement or half basement, dirt floor, the ice machine or the compressor unit was mounted on a wood platform, and the liquid line was run from the condensing unit to the expansion valve on the cold diffuser. The suction line was run from the cold diffuser to the compressor suction, and a hot gas discharge was run from the compressor discharge to the cold diffuser coil inlet, and valves placed so that hot gas could be used to manually defrost the coil of ice. Now that completes the thing, as far [1116] as I know.

Q30. To what coil, referring to Plaintiff's Exhibit Y-25, do you refer?

A. The seamless copper coil with aluminum fins for Freon. Does that answer it?

Q31. Yes. Did the diffuser unit in the chill room have some means for collecting ice or water from the coil?

Mr. Lyon: That is objected to as leading.

A. Well, there is a picture which shows a pan underneath the coil.

Q32. I am referring to the unit at Yamhill.

A. Yes, there is a pan on the coil diffuser similar to the one in the Illustration.

Q33. And at Yamhill what happened to any water or any liquid entering this drip pan?

(Deposition of Mark A. Postlewaite)

Mr. Lyon: That is objected to as leading.

A. Well, in the middle of the pan is a pipe connection draining the pan which slopes to this pipe connection, and a hole was put in the floor and a piece of pipe and a hose run through the floor. Does that answer the question? I want to answer your question. It spilled onto the dirt floor of the basement.

Q34. Where was the hose?

A. The hose was used passing through the floor, the insulated floor. [1117]

Q35. Passing through the insulated floor?

A. That is right.

Q36. Was that the pipe to which you refer?

A. The pipe was a short piece of pipe to which the hose was attached.

Q37. Mr. Postlewaite, at the time this installation was first put in was any means employed for defrosting the coil on this Carrier unit?

Mr. Lyon: That is objected to as already asked and answered.

A. Hot gas from the condensing unit was piped to the unit and used to defrost the coil.

Mr. White: Q38. Did that expedient continue to be used?

A. A very short time. It was deemed too slow, and the store manager complained that he was incapable of operating it that way.

Q39. What if anything was done to correct or change that condition?

A. After discussing it with our service man, he suggested that water be used to defrost the coil, and after

(Deposition of Mark A. Postlewaite)

considerable argument about it, why, permission was granted him to get the material together to install it.

Q40. Who granted him that permission?

A. I did. He got all ready to install it and stated that he was not as fast or as accomplished a pipefitter as he was [1118] a copper tubing installation man, so he requested help, which I gave him myself. I went out to Yamhill with Broms, the installation man, and the two of us cut the pipe and fittings and installed water connections to enable the store manager to defrost the coil of ice.

Q41. Will you describe what you and Broms installed.

A. In the cold diffuser or blower unit between the cooling coil and the fans we installed a galvanized pipe in which holes were drilled to allow the water to spray at a number of points along the pipe. The pipe extended through the housing at the end of the cold diffuser, and a hose was connected to the water main with the valve in the basement. At a point between the hose connection and the housing outside of the cold diffuser a handle was placed so that the water distributing pipe could be rotated around its horizontal axis, sprinkling the coils from side to side at the choice of the operator.

Q42. You referred to a valve. Where was the valve located?

A. The supply valve was located in the basement where the water mains were.

Q43. When you say "water mains," to what do you refer?

A. That is the supply water to the building.

(Deposition of Mark A. Postlewaite)

Q44. Explain how the water flowed from the supply main to the perforated pipe to which you have referred? [1119]

A. When the operator opened the valve on the supply side of this water connection to the cold diffuser, water passed through the valve up through—through the pipe into the hose, and then into the perforated header, the perforated distributing pipe.

Q45. Did you operate the defrosting equipment which you have described? A. Yes.

Q46. Will you describe, please, how you operated that equipment.

A. You mean how I defrosted or how I operated the header?

Q47. How you operated that equipment in a defrosting operation.

A. Let's see. First, I closed the hand stop valve supplying liquid refrigerant, Freon, to the cool coil. Then we opened the water supply valve supplying water to the distribution pipe.

Q48. That is the pipe in the diffuser?

A. That is right—did that in the basement. Then we went upstairs into the cold storage room and moved the handle rotating the pipe and changing the sprays from front to back a number of times until we felt sure the ice was all off the cool coil. Then we went back into the basement and turned the water off and opened a valve allowing the residual water in the line to drain out of the supply pipe to [1120] the distributing pipe. Then I opened the supply valve on the liquid refrigerant line to the cold diffuser and started the operation again.

(Deposition of Mark A. Postlewaite)

Q49. You referred to that diffuser as containing a fan or blower. Does or did the operation of the blower have any connection with a defrosting operation?

Mr. Lyon: That is objected to as leading.

A. Any defrosting operation with this type of equipment necessitates the shutting down of the fans during the entire defrosting operation.

Mr. White: Q50. Was that true in your operation of the equipment at Yamhill?

A. Yes, that is true.

Mr. Lyon: Objected to as leading.

Mr. White: Q51. Mr. Postlewaite, why did you drain the water out of the hose line running to the spray pipe, as you have described?

Mr. Lyon: That is objected to as already asked and answered, and also as a conclusion of the witness as to why; a mental attitude.

Mr. White: Q52. Did you do that for any specific purpose?

Mr. Lyon: Same objection.

A. Well, we have used brine in some jobs for defrosting, and where the brine has been allowed to get dilute the defrosting and the whole operation is imperiled due to the frozen [1121] pipes, and just as a precaution, to keep from having the pipes frozen and stopping all operations, we put that valve in.

Q53. Why did you take that precaution in this instance?

A. Well, just insurance.

Q54. Was the unit visible in the chill room when first installed as you have described?

A. When it was first installed, yes.

(Deposition of Mark A. Postlewaite)

Q55. Do you have any recollection of temperature conditions in that chill room at that time?

A. Well, the temperature conditions at first were above freezing, just what was desired. At that time the lockers were not all sold, and later as the lockers became sold and the load became more on the cold diffuser equipment the apparent lack of capacity was complained of and the cold diffuser was housed in and insulated.

Q56. Do you recall having made any observations that would indicate temperature conditions in the chill room at the time this diffuser unit was openly exposed in that room?

A. I know that I set the thermostat at 35 degrees in this chill room.

Q57. Do you know whether the chill room temperature was that high?

A. Yes, I know that at times it was that high.

Q58. And at this same time was that Carrier ceiling diffuser [1122] that you previously referred to in operation? A. Yes.

Q59. Was the installation changed thereafter, to your recollection, while still using water for coil defrosting as you have described?

Mr. Lyon: That is objected to as leading.

Q60. You have previously testified that the diffuser unit was housed in and insulated. Will you explain how that housing and insulation was made.

A. While the cold diffuser was not moved, a wall or insulated partition was built from the common partition wall between the two rooms around the cold diffuser from the floor to the ceiling, making a third room in which

(Deposition of Mark A. Postlewaite)

this cold diffuser was the only thing located in there. There was no other equipment in there.

Q61. Was the interior of that third unit-containing room accessible?

A. Yes. We could not get in there, but we could open doors and reach in.

Q62. Did you observe the operation of this system after the unit was housed in as you have described?

A. Yes.

Q63. Did you make observations of temperature conditions in the locker room?

A. Yes, the locker room controlled temperature—the [1123] thermostat was set to operate between 5 and 10 degrees Fahrenheit and did that. I observed that it did that.

Q64. Do you know that, when that temperature existed in the locker room, the temperature was in this third insulated unit-containing room?

A. I don't know just what the temperature was, but I do know that water in there froze during operating periods. It must have been considerably below freezing.

Q65. Where did water freeze in there?

A. On the sides of the unit, and on the floor where the sprays would splash out, the spray water would splash out through the connections.

Q66. Did you operate this water defrosting system in the manner previously described after the unit was enclosed within this insulated wall?

A. Yes, I operated it.

Q67. Did you observe the results of its operation?

A. Yes, I know pretty well what I saw there.

(Deposition of Mark A. Postlewaite)

Q68. What did you see?

A. I saw that as long as the water supply was maintained in the main coming into the building the defrosting was as "Tony" Broms, or Anton Broms, had first anticipated, and that when the water supply was not maintained the defrosting did not occur or the de-icing did not take place, and I had another problem. [1124]

Q69. Was the water pressure adequate at times?

A. It was adequate at times, but sometimes people would use the water on other places in the building and then the pressure would drop and the defrosting or de-icing would not take place, and as a result you could not be sure that ice was off.

Q70. Would any de-icing take place when the water pressure was down?

A. If the pressure were reduced enough, other uses were large enough, the de-icing would drop to— did not occur at all. At other times when the pressure was just partially reduced, why, the de-icing was slow, very slow.

Q71. But there was de-icing?

A. As long as there was water there was de-icing.

Q72. When higher water pressures existed what was the result of the de-icing operation?

Mr. Lyon: That is objected to as calling for a conclusion of the witness and too indefinite to be of any value.

Mr. White: I will reframe the question.

Q73. Is it true that at times the water pressure was higher than on those occasions to which you last referred?

(Deposition of Mark A. Postlewaite)

Mr. Lyon: That is objected to as leading, and also as too indefinite to be of any value.

A. At times there was sufficient water pressure on the mains to force sufficient water into the spray pipe to defrost [1125] or de-ice the coils in what I considered a satisfactory time.

Q74. Did you observe the result of the de-icing operation at those times?

A. There were times when there was sufficient water pressure that the ice was entirely removed from the coils, sufficiently so to produce a satisfactory cooling operation later.

Q75. Mr. Postlewaite, did water freeze at any time within your observation in either the perforated spray pipe or the hose connection with the valve in the basement?

A. At one time while checking the time of defrosting the coil I found that the water pressure had been reduced sufficiently that the defrosting did not take place, and at that time I started to put the coil back into operation, trying to prevent the temperature in the locker room from getting too high. At that time the drain valve on the supply line to the cold diffuser was closed, and after the water pressure came back up we tried to open the valve in the supply line, which we did, and the water did not flow, so we had to get a torch and thaw it out.

Q76. Did you encounter any similar situation at other times and at higher water pressures?

A. Never—no, I can't answer that "Yes" or "No." When the drain valve was opened the water drained out and there was no freezing in the line. When the valve

(Deposition of Mark A. Postlewaite)

was closed, [1126] and there was sufficient water, the operation took place and there would be no freezing in the pipe.

Q77. And that is true within your personal direct observation of the operation of the system?

A. I went out there a number of times due to the complaint of the operator trying to check on him to see if he was defrosting correctly. I think I know more about that because I understand it pretty thoroughly.

Q78. Did you see the system in operation after its installation which you have described?

Mr. Lyon: That is objected to as already asked and answered a number of times.

Mr. White: I am speaking, Mr. Postlewaite, after the plant was turned over to the customer.

Mr. Lyon: Same objection.

A. The plant had been turned over to the customer and it was all paid for when the water defrosting was installed.

Mr. White: Q79. Do you mean the plant was paid for at the time the water defrosting was installed, or before or after?

Mr. Lyon: That is objected to as leading.

Mr. White: Q80. Will you give me, within your own personal knowledge, the time when the plant was paid for with reference to the time when the water defrost system was installed. [1127]

A. Well, I can't tell you just what date Mr. Trullinger paid it, because the money came in, and we kept no bank accounts or any record of things like that. All moneys or any payments on any contracts went to our head office

(Deposition of Mark A. Postlewaite)

in Seattle. I do know that Mr. Trullinger brought up the point at the time we installed the water defrost, he said, "Well, this thing is all paid for. I suppose you fellows are going to leave me high and dry." And we made quite a point of the fact—played it up to him—that we were trying to still accept the responsibility of the operation of the plant in a satisfactory manner, at least for the year that the equipment was guaranteed for.

Q81. Did you subsequently see to the operation of the plant? A. That is right.

Mr. Lyon: That is objected to as already asked and answered several times.

Mr. White: Q82. Would that be in the nature of service work?

Mr. Lyon: That is objected to as immaterial.

A. Well, the water—

Mr. White: Q83. Mr. Postlewaite, will you just answer the question that I asked. I will try to clarify that. Did you do any work causing or involving your inspection or familiarity with that unit after it was installed and turned over to the company, to Trullinger & Eustice? [1128]

Mr. Lyon: That is objected to as already asked and answered a dozen times. He said it was turned over to them and when it was paid for, and it was paid for before this so-called water defrosting was installed.

Mr. White: That is your conclusion, counsel.

Mr. Lyon: That is just what he stated.

Mr. White: The witness stated he didn't know exactly when it was paid for.

Mr. Lyon: He said Mr. Trullinger had told him it was paid for before he made the change-over.

(Deposition of Mark A. Postlewaite)

Mr. White: Let's clear up that question right now.

Q84. Mr. Postlewaite, can you tell us of your own knowledge when that plant was finally paid for, the date of it?

Mr. Lyon: That is objected to.

A. I couldn't tell you.

Mr. Lyon: That is objected to as already asked and answered and an attempt to cross-examine your own witness.

Mr. White: Q85. Do you know the exact date?

A. No.

Mr. White: That is exactly the point I wanted to bring out.

Q86. Now after it was paid for, Mr. Postlewaite, were you at Yamhill to see the unit? A. Yes.

Mr. Lyon: Just a moment. How can he possibly answer the [1129] question when he says he doesn't know when it was paid for.

Mr. White: Not a bad observation, counsel.

Q87. After the plant was installed, Mr. Postlewaite, as you have described, did you go to Yamhill to see it?

Mr. Lyon: That has been answered a dozen times.

Mr. White: I will accept that continuing objection, counsel. Let's get on with the deposition.

Mr. Lyon: After all, you should confine yourself to questions and not to cross-examining your own witness. The question has been asked and answered many times, and I object to the continued attempt to cross-examine this witness.

(Deposition of Mark A. Postlewaite)

Mr. White: I am merely clarifying that one point.

A. At what I considered the completion of the job I notified our headquarters in Seattle that the job was complete and advised them that if they had any payments due at the completion of the job they were then due. From then on I have no way of knowing whether any money was paid or not. But I did go to the job after that, not once but many times, with the idea of having responsibility of the operation of the plant for a year, twelve months.

Q88. Did you visit the plant within that twelve-months period? A. Yes, sir.

Mr. Lyon: That is objected to as already asked and answered. [1130]

Mr. White: Q89. At approximately what intervals, as closely as you can remember?

A. Oh, they were not any shorter intervals than two weeks, and some of them might have been up to a month; from two weeks to a month apart.

Q90. That would be your best approximation?

A. That is right.

Q91. And did or did not those visits continue throughout that year period?

Mr. Lyon: That is objected to as already asked and answered.

Mr. White: I said before, counsel, within that year, and I am now talking about throughout that year.

A. Yes, they continued throughout the year, the period of a year.

Q92. Was that water defrost system as you have described it still installed and in operation in the plant

(Deposition of Mark A. Postlewaite)

throughout that year so far as you could tell from your visits?

Mr. Lyon: That is objected to as leading.

A. The water defrost was still installed and in operation at the end of the year.

Mr. White: Q93. Mr. Postlewaite, at the time of those visits did you visit the locker room?

A. Yes.

Q94. Did you observe the temperature conditions therein? [1131]

A. Yes. That was very important.

Q95. What did you find to be the temperature conditions in the locker room?

A. I found the temperature to be between five degrees above Fahrenheit and ten degrees above Fahrenheit on every occasion except one.

Q96. What was the approximate temperature, if you recall, on that occasion?

A. It was up to twelve degrees.

Q97. What was stored in the locker room during that time?

Mr. Lyon: If you know.

Mr. White: Q98. Or do you know what the locker room contained?

A. Well, the lockers were full of farmers' produce, so I was told.

Mr. Lyon: I move to strike the statement as hearsay.

A. I could see packages in the lockers; that is all. I could see that the lockers were occupied. That is all that I know.

(Deposition of Mark A. Postlewaite)

Mr. White: Q99. Did that water defrost system continue to be used at all times after this year period to which you have referred, if you know?

Mr. Lyon: That is objected to as calling for a conclusion of the witness.

A. Do you mean is it still in operation? [1132]

Mr. White: Q100. Yes, I will accept that.

A. I have been there since that time and the water defrost is not in operation.

Q101. What means is now used to defrost the coil?

A. Warm air defrosting. Warm air is used to defrost the coil.

Q102. Do you know who installed the warm air defrost system? A. Yes.

Q103. Who?

A. Western Engineering. We installed it.

Q104. Do you know a Mr. Hastorff or the Hastorff Company? A. Yes.

Q105. Will you identify either the individual or the company.

A. Well, the Hastorff Company had the franchise for Carrier equipment in Portland and surrounding vicinity from the time that Electrical Products did not have it, or it was taken from them—I don't know why they separated, but from that period up until the time Western Engineering took the Carrier franchise in December, 1938.

Q106. Do you recall approximately when that warm air defrosting system was installed?

A. It was installed in the winter of '38-'39.

(Deposition of Mark A. Postlewaite)

Q107. Do you know Mr. M. O. Cox here in Portland, who [1133] resides or has a place of business at 1611 Southeast Ninth Street? A. Yes, I know him.

Q108. Do you know whether he had anything to do with work incident to the installation of this warm air defrosting system?

A. It is my recollection that he did.

Q109. What did he do?

A. The sheet metal work and the dampers that were necessary to carry the air from the cold diffuser outlets up through the roof were furnished and installed by him.

Q110. You know that of your own personal knowledge?

Mr. Lyon: That is objected to as leading.

Mr. White: Q111. Do you know that to be a fact?

Mr. Lyon: Same objection.

Mr. White: Q112. Do you know that Mr. Cox did that work?

A. At the time the work was done Western Engineering was renting part of the building from M. O. Cox, and we gave M. O. Cox all the sheet metal work that came our way—the same address.

Q113. Insofar as you know, Mr. Postlewaite, does Western Engineering have any record of the date of that change-over? A. Which change-over?

Q114. The date of installation of the warm air defrosting [1134] system?

A. They may have, but I haven't had time to look for it. Jarvis knows how busy we are now, and we have moved twice since that time, and it would take some probably three or four days to check our records. We haven't had time to look for it.

(Deposition of Mark A. Postlewaite)

Q115. Mr. Postlewaite, do you know a Mr. Gail Shapley? A. Yes.

Q116. Is it a fact that he is now an employee of yours?

A. Yes. He is our employee.

Q117. Do you know whether he was present at the Yamhill plant while the water defrost system was installed and in operation? A. Yes, he was at that plant.

Q118. How do you know?

A. Because after the plant was installed I had difficulties with Anton Broms due to Anton Broms declining to join the union, and the company policy of Electrical Products was that everybody in the organization working at a journeyman's trade had to belong to the union, a suitable craft, and as a result of that Mr. Shapley was put on to work shortly after the first of the year in 1937. And any service call or any work that was done from 1937 on to this date he either did himself or he superintended for me or Hastorff or Western Engineering.

Q119. Did his service work include service work at the [1135] Yamhill plant? A. It did.

Q120. Did you personally see him there?

A. I did.

Mr. Lyon: That is objected to as leading. It might be well to let the witness testify just a little bit, Mr. White.

Mr. White: The witness said yes, I believe, to the last question.

Mr. Lyon: And I believe he had finished.

Mr. White: The witness has testified that he was at the Yamhill plant, and I asked him merely if he saw Mr. Shapley there after he had stated that Mr. Shapley did service work for him out there.

(Deposition of Mark A. Postlewaite)

The Witness: I took him out there the first time and showed him the installation and explained it to him.

Mr. Lyon: Just a moment. There is no question before you. I move to strike the statement of the witness as entirely voluntary.

Mr. White: Will you check the record, Mr. Reporter, to see if we have a question?

(The record was read as requested.)

Mr. White: I believe that is all.

Cross Examination

By Mr. Lyon: Q121. You stated, Mr. Postlewaite, that you carried out these operations of turning on the water to try [1136] to remove the ice from the coils on this Carrier diffuser. How long did you let the water run?

A. Oh, I timed it as long as fifteen minutes.

Q122. As long as fifteen minutes. Never any longer?

A. When the water pressure dropped, yes, I had to wait longer. I have waited sometimes as long as forty minutes.

Q123. And sometimes longer than that, didn't you?

A. Well, I may have and may not. I didn't note the time.

Q124. During that period of time the temperature inside of the diffuser raised to practically the temperature of the water, didn't it?

A. Well, no, I don't think so. It might have. I couldn't tell you that for sure.

Q125. You never measured it?

A. No, I never measured with a thermometer, no.

(Deposition of Mark A. Postlewaite)

Q126. But you know it raised considerably above freezing?

A. It went above freezing when—well, you see, the cold diffuser was inside of the room once and was outside of the room once.

Q127. Well, it was outside of the room at all times that this water was used?

A. Outside of the locker room, yes. If this were the chill room, it is in the chill room here and all exposed; you can walk up there and put your hand on it. When you defrosted that way the sweat just rolled right off of it and it came [1137] right up to above freezing temperature.

Q128. I mean when it was closed with this wall you put doors—

A. So you could reach in.

Q. (Continuing)—in front of the inlet and outlets so that you could close off circulation from the locker room to the diffuser, didn't you?

A. Yes, sir.

Q129. And kept the cold air from the locker room going into the diffuser during the time of your spraying water onto the coils?

A. The door was put on there so that when you were not defrosting the air would not get in there from the locker room, into the space around the cold diffuser.

Q130. Well, you had doors, inlet and outlet, that closed the wall opening into the diffuser from the locker room, too, didn't you? Or maybe you don't remember that.

A. Wait a minute.

There were doors into this insulated room compartment in which the cold diffuser was located, and those doors were always closed except when you were defrosting.

(Deposition of Mark A. Postlewaite)

Mr. Lyon: Q131. And also the diffuser outlet was connected through an opening in the wall in that cold room, wasn't it? A. That is right.

Q132. There was a door to close that outlet placed there, [1138] wasn't there, or a door to close that outlet and the inlet? There was both an inlet and outlet in that wall, wasn't there?

A. Yes, but we didn't close that—I didn't close that door myself.

Q133. You never closed any of those doors?

A. No, sir.

Q134. You don't know whether there were doors there or not?

A. Right now I couldn't tell you, in other words, that there were, because I was not interested in the thing from an experimental point of view. I was interested in seeing if I could get the plant to operate without—

Q135. What you were doing—

Mr. White: Let the witness finish.

A. —trying to get the water to defrost. I was trying to get the water defrosting on its own legs.

Mr. Lyon: Q136. You were experimenting, weren't you?

Mr. White: That is calling for a conclusion of the witness.

Mr. Lyon: The witness has already used the word.

A. I was trying to prove the operation of water defrosting.

(Deposition of Mark A. Postlewaite)

Mr. Lyon: Q137. As you stated, you were experimenting with it? That is why you went out there so often?

A. I didn't go out there with the idea of experimenting. [1139] You haven't asked me why I went out, so all I can say is I didn't go out with the idea of experimenting.

Q138. You did state you went out to try to prove whether it would work or not, didn't you?

A. Well, I had already proved—

Q139. Just answer that question, please.

A. Well, I can't answer it "Yes" or "No." I don't think I can, because I went out to see why somebody said it didn't always work.

Q140. You had those complaints that it didn't always work?

A. I had complaints that it didn't always work.

Q141. And those complaints came from the operator?

A. That is right.

Q142. And that operator was Mr. Eustice?

A. Yes, sir.

Q143. And any other operator?

A. He had a meat cutter there at times. That fellow is dead now.

Q144. Who also complained that it didn't work at times? A. He couldn't work it at times.

Q145. He couldn't make it work?

A. That is right.

Q146. Now when is the first time that you saw that this device had been removed and completely replaced?

A. Oh, in the spring of '38. [1140]

(Deposition of Mark A. Postlewaite)

Q147. Now after the spring of '38—

A. The spring of '39 or winter of '38-'39 we changed the water defrost.

Q148. Now after this had been replaced did you continue to go out there at periods of two weeks to a month to find out whether the new system was operating or not?

A. No.

Q149. You didn't repeat this proposition of going out there every two weeks or a month after that?

A. No.

Q150. You are acquainted with Mr. H. T. Jarvis sitting here, are you not?

A. I have seen him at times.

Q151. You have met him quite a number of times?

A. Right.

Q152. The Western Engineering Company was formed, you say, in the forepart of 1938?

A. No, in December, 1938.

Q153. Isn't it a fact that Mr. Trullinger helped finance the formation of that company? A. No, sir.

Q154. He had no money in it at all?

A. He had no money in it at all.

Q155. At any time? A. At any time. [1141]

Q156. Had nothing to do with the formation of that company? A. Absolutely not.

Q157. As a matter of fact, Mr. Postlewaite, you do not of your own personal knowledge know that that job was ever paid for, do you?

A. No, sir. I never handled the money.

(Deposition of Mark A. Postlewaite)

Q158. At the time that you stated you located this equipment at this Yanhill plant what was your reason for locating the diffuser outside of the cold room or outside of the locker room?

A. Why we located it outside of the locker room? The row of lockers that would fit would be misaligned if the cold diffuser were put in the locker room, and at the request of Mr. Trullinger, that he would rather have that for the lockers why, we looked for a space to put it. For a while we thought we would put it outside the room, the cold storage room, entirely; but we finally decided to sacrifice part of the chill room and put the cold diffuser in there as being more centrally located with respect to the locker room.

Q159. Now, you have been out there and inspected that system, you say, a year ago last July, haven't you?

A. Yes, sir.

Q160. There is no misalignment of lockers by the positioning of that unit now, is there? •

A. That is a matter of opinion. [1142]

Q161. The lockers run in straight lines, don't they?

A. That is right.

Q162. And continuously? A. Yes.

Mr. White: That assumes a fact not in evidence.

Mr. Lyon: I am asking the witness a question. He said yes. Kindly don't interrupt.

Q163. Did you see any misalignment of these continuous runs of lockers by the positioning of that Carrier diffuser when you last saw the installation?

A. You want a "Yes" or "No" answer on that?

Q164. Yes. A. Or do you want to know why?

(Deposition of Mark A. Postlewaite)

Q165. No, I want a "Yes" or "No" answer.

A. I will give you a "Yes" or "No" answer, but that is not the answer.

Mr. White: You may answer "Yes" or "No" and explain your answer.

A. Well, I will say I don't notice any misalignment now. The lockers run quite low along the wall, different than they were planned at the time that the cold diffuser was first installed.

Mr. Lyon: Q166. Do you know whether the lockers have been changed in any way from the time they were installed? Weren't they originally installed the same way they are now? [1143]

A. The lockers were not exactly the same—the rows were not just exactly the same as they were when I was out there last.

Q167. That is a year ago last July?

A. Yes, sir.

Q168. You haven't been there since then?

A. No, sir.

Q169. As a matter of fact, you noticed when you were there a year ago last July that there were a lot more lockers than there were when the installation was first made, didn't you? A. Yes, sir.

Q170. In fact, there were about 250 lockers in there originally and there are about 350 now; isn't that true?

A. There were 178 when we first started the plant.

Q171. There is about 350 now in the room?

A. I don't know how many there are. I had no reason to count them.

Q172. But you know there is a lot more than 178?

A. Absolutely.

(Deposition of Mark A. Postlewaite)

Q173. Isn't it a fact that you have placed the cold diffuser outside the locker room in order to take advantage of the higher temperature out there for the carrying out of defrosting operations? A. No, sir. [1144]

Q174. That had nothing to do with it?

A. Absolutely not.

Q175. There is a higher temperature outside the locker room which would aid you in defrosting the unit, isn't there? A. Yes.

Q176. How long had you been in the refrigeration business during the time of 1936-37?

A. How long had I been in the refrigerating business? I have been in the equipment business since 1925. I had been handling ice machines since 1915.

Q177. All right. Now, in handling ice machines you know that there had long been a problem in the matter of defrosting, and many different means had been tried and many different failures made, didn't you? There was a lot of trouble with defrosting?

A. I knew that defrosting was a problem, a very serious problem.

Q178. Didn't you know at the time of this Yamhill installation that you could not defrost a unit with hot gas unless you had a stand-by supply of hot gas?

Mr. White: This is objected to as entirely irrelevant and immaterial; whether there was a stand-by supply of hot gas for a hot gas defrosting system which the witness said was taken out is utterly of no consequence.

Mr. Lyon: Answer the question, please. [1145]

A. I estimated the job to be defrosted with hot gas exactly as instructed in the Carrier price and data information and installed it that way.

(Deposition of Mark A. Postlewaite)

Q179. And you did not know at that time that if you did not have a stand-by charge of hot gas that hot gas defrosting would not work?

A. Well, I am not familiar with your term there, but we have made other installations which I am sure are still in operation exactly a duplicate of this except that it still has hot gas defrosting.

Q180. Only one compressor operating one diffuser?

A. Absolutely.

Q181. And you turned off the compressor when you wanted to defrost? A. Yes, sir.

Q182. And you do that now?

A. You don't turn your compressor off. You operate the compressor, but you run the hot—you are treading pretty close to a trade secret—not a trade secret, but a trade knowledge now. In other words, to explain this thing satisfactorily to you I am going to have to tell him how we do it, which is something he doesn't know.

Q183. He is not interested.

A. I know, but I want you to understand how this thing is. In other words, the information we get from the catalogue [1146] and the price and data sheets we are told to keep confidential, and I am telling you now that if you want to bring that in I will have to bring in something else here.

Q184. Was that information in the price and data sheets in 1936? A. Yes, sir; it was.

Mr. White: Just a moment, counsel. I want to enter on the record an objection to this line of examination as being entirely incompetent, irrelevant and immaterial, and unless you will point out wherein it is relevant to anything

(Deposition of Mark A. Postlewaite)

in the witness' direct examination I shall instruct him not to answer.

Mr. Lyon: You go right ahead and instruct him not to answer if you think you should. The witness has testified to the proposition of first using hot gas, as the first way this system was installed. I am certainly entitled to cross-examine him fully with respect to that installation, and it is cross examination.

Mr. White: If you will confine your examination to that installation—

Mr. Lyon: I haven't asked him about any other installation. He has volunteered statements with respect to other installations. I haven't asked him.

The Witness: That is right. All right. The Carrier has a method— [1147]

Mr. Lyon: Just a moment. I don't believe there is any question in front of you at the present time.

Mr. White: May I—

Mr. Lyon: You may take him on redirect examination when it is your turn.

Mr. White: All right.

Mr. Lyon: Q185. You state that this so-called trade secret method was in the Carrier price and data sheets at the time you made this installation? A. Yes, sir.

Q186. Did you utilize that so-called trade secret at that time? A. Yes.

Q187. And it didn't work?

A. Well, it didn't work where?

Q188. At the Yamhill installation.

A. It worked at the Yamhill installation, but it required a very careful balance, heat balance, between the feed of hot gas to the coil and the condensed liquid re-

(Deposition of Mark A. Postlewaite)

turn to the compressor section, which type of operation was manual; and Mr. Eustice, the operator, was too impatient to adjust it to conditions.

Q189. He just couldn't make it work; that is what you mean?

A. My opinion at the time was he wouldn't make it work. [1148]

Q190. Well, he didn't make it work?

A. He didn't give a damn. During a fight with Mr. Eustice his brother-in-law—you see, Trullinger and Eustice are brother-in-laws, and they had a hell of a fight.

Mr. White: Mr. Postlewaite, I would suggest you confine your answers to the questions.

Mr. Lyon: He is explaining his answer. Let him go ahead and don't interrupt the witness' answer.

The Witness: It is my opinion that he just wouldn't operate it, wouldn't make an attempt to operate it. Put it that way.

Mr. White: We are still speaking of the attempted hot gas defrosting; is that true?

A. That is what I think you were talking about.

Mr. Lyon: That is right.

Q191. Now, Mr. Postlewaite, do you know how long it takes to defrost that system using the present hot air system, or have you ever observed the operation or tried it?

Mr. White: To what system do you refer?

Mr. Lyon: The Yamhill installation.

Mr. White: The question is objected to; no proper foundation.

(Deposition of Mark A. Postlewaite)

A. Q. Well, it varies, depending on the amount of ice that has been accumulated on the coil.

Mr. Lyon: Q192. Have you ever seen it defrosted with [1149] this hot air system down there at that particular plant? A. Yes, sir.

Q193. How long did it take at the time that you saw it?

A. Well, from the time that it was started to defrost to the time that we started back to operating it was about thirty minutes.

Q194. About thirty minutes?

A. But we were not standing there watching the minute the ice was all off. We didn't start it right up again. We went ahead and chewed the fat.

Q195. Let me ask you another question: What is the rate of temperature rise of that defrosting room when the diffuser operation is discontinued or the supply of refrigerant is stopped to the heat transfer coils of the diffuser? A. You are a little too fast for me.

Q196. When the refrigerating machine is stopped you stated that you made observations of the temperature rise of that room at times when you were trying to carry out the defrosting operation. What was the rate of temperature rise of the locker room when the refrigerating machine operation was discontinued?

A. When the ice machine was shut off what was the temperature rise in the locker room itself?

Q196. That is right.

Mr. White: The question is objected to. There is no [1150] foundation for it. You haven't asked him whether he observed.

Mr. Lyon: He so testified on direct examination.

(Deposition of Mark A. Postlewaite)

Mr. White: Did he testify on direct examination that he observed temperature conditions at the time the unit was turned off?

Mr. Lyon: Yes, he did. Just let the witness answer the question.

Mr. White: Will you ask him that question again, then, rather than to take time to review the record?

Mr. Lyon: I think the witness thoroughly understands the question.

Mr. White: Whether he observed the temperature conditions in the locker room at and following shutting off of the diffuser?

Mr. Lyon: I think the witness understands the question and does not need any coaching. I will just ask that the question be read and ask the witness if he can answer the question.

A. The temperature rose—I remember it rose as much as two degrees.

Q198. In how long a period of time?

A. Less than an hour.

Q199. Two degrees in an hour. And that was your observation of the rate at which the temperature rose in the locker room per hour during the times that you were making these determinations of its operation? [1151]

Mr. White: That question is objected to. The witness didn't say anything of the sort. He didn't say two degrees per hour. He says it rose two degrees in an hour.

Mr. Lyon: Q200. Can you answer the question, Mr. Postlewaite?

A. I remember the room temperature rising two degrees in less than an hour during a defrosting period.

(Deposition of Mark A. Postlewaite)

Q201. In how much less than an hour? You are pretty well acquainted with the room out there, are you not? A. Well, I remember it.

Q202. You spent quite a lot of time in there?

A. Yes, some years ago; yes.

Q203. If the refrigeration machine was removed entirely and placed out of operation for a period of twenty-four hours, can you tell me how much the temperature would rise in that locker room, approximately?

A. No. Nobody else that I know of can tell you that.

Q204. It would be a material rise, somewhere in the neighborhood of the same rate that you stated, two degrees per hour? A. Not necessarily.

Mr. White: Just a moment, counsel. I object to those questions. The witness has contradicted you before you ask the question.

Mr. Lyon: Just let the witness finish his statement. [1152]

A. The temperature rise in a condition like that is not a straight line but a curve. It is very sharp at the lower temperatures, and as the refrigerated room assumes closer the temperature of the outside atmosphere, where, ever, the temperature is leaking through the walls, why, the rate slips off so it would be a much faster rise right at that time then.

Q205. Assuming, Mr. Postlewaite, from your experience that the room started at five degrees Fahrenheit above zero, and the room was shut off—I mean there was no refrigeration at all for 48 hours—isn't it your statement that the room would be above freezing at the end of that time?

(Deposition of Mark A. Postlewaite)

Mr. White: Just a moment, Counsel. The witness has not stated anything of the sort, and I object to this most strenuously. What he told you was that he didn't know.

Mr. Lyon: Just quiet down.

Mr. White: Just a minute. Let me finish my objection.

Mr. Lyon: All right. Finish your statement but don't make statements like that to me.

Mr. White: Just a minute, until I finish.

Mr. Lyon: You address your statements to the record. I am conducting this cross examination.

Mr. White: Am I permitted to enter my objection?

Mr. Lyon: Yes, enter your objection and enter it in a proper way, and don't try to instruct the witness in doing it.

Mr. White: I am not attempting to instruct the witness. [1153]

Mr. Lyon: All right; state your objection.

Mr. White: Will you permit me to?

Mr. Lyon: Yes, go ahead.

Mr. White: Well, please do so.

Mr. Lyon: Don't argue with me. Just state your objection.

Mr. White: My objection would long ago have been stated had you not interrupted. Now will you please let me proceed. My objection to your question was that it presupposes something that the witness had not testified to and it was directly contrary to what the witness had testified to. Further, that it appears to be an attempt to gain an admission from the witness of something which he has denied.

(Deposition of Mark A. Postlewaite)

Mr. Lyon: Let the witness take care of himself. I believe the witness can take care of himself. He has shown a very good ability to do that.

Mr. White: That may be your opinion, but at the same time the questions should be proper.

Mr. Lyon: The question is perfectly proper.

Mr. White: The objection stands.

Mr. Lyon: Will you answer the question, please.

A. I don't know. I could not guess what the temperature of the locker room, this locker room, would be 48 hours after the refrigeration is shut off. If I was going in and out of that room and other people were using it, too, so that the temperature went up, it went up and there was no stopping [1154] it. If the refrigeration were to fail I believe that any locker operator would post a sign up that nobody could go in, and lock the door. At other places I have been, in about 24 hours it has been around six degrees. Now that is just my experience, the only thing I have got to go on.

Q206. I will ask you the specific question, Mr. Postlewaite: were you present at any time when this unit was moved from outside of the locker room into the inside of the locker room?

A. Outside the locker room inside of the locker room? I was there previous to that and immediately afterwards.

Q207. You know what that operation entailed, of putting in ducts and changing the machine from one location to another, and changing the piping and changing the electrical connections, and so forth, don't you?

A. Yes, I know about what that takes; yes, sir.

Q208. And suppose that operation had taken four or five days to perform and men were going in and out of

(Deposition of Mark A. Postlewaite)

both the chill room and the locker, as is required to do such an operation, what would the temperature rise have been in that room?

Mr. White: That question is objected to as entirely irrelevant and immaterial. We are not here to examine the witness as to what supposedly might have occurred, but as to what did occur. If you want to ask the man how long the [1155] change required, I have no objection to your question.

Mr. Lyon: The man is placed here as an expert on refrigeration. You have tried to so qualify him.

The Witness: No, I didn't—

Mr Lyon: As a practical expert of seventeen to twenty years' experience in this field.

The Witness: That is my experience, but I haven't here explained that I am an expert. I am making my living that way, but I may be fooling people doing so, see.

Mr. Lyon: We will stipulate to that, but that is immaterial.

Mr. White: Just a moment. I still wish to repeat that objection.

Mr. Lyon: Your objection is stated.

Mr. White: The question was attempted to again be asked, though.

Mr. Lyon: No, I haven't asked the question again. I am going to ask that the question be read to the witness and he state whether he can or cannot answer the question.

(Last question read.)

A. I can't answer that. I don't know.

(Deposition of Mark A. Postlewaite)

Q209. You can give no approximation?

A. No, sir; I cannot. There are so many variables there.

Q210. Would the temperature rise have been any differ- [1156] ent or any less per unit of time than occurred during normal defrosting operations when you observed the temperature rise?

A. I would think that it might; it might.

Mr. White: Just a moment.

Mr. Lyon: Q211. It might be which way?

Mr. White: Just a moment, please. I wish to enter this objection again: That to my recollection the witness has at no time stated that he observed the temperature rise, the rate of temperature rise, in the locker room under such conditions as you refer to.

Mr. Lyon: Well, I think you better read the record. The witness, I think, understands.

Q212. Do you mean it would be at a greater or less rate than you have stated to be two degrees in about an hour's time?

A. I would judge that at the start of the work, when the temperature was down, that the rate would be—I can only guess at that. I couldn't give you an answer. I don't know. You are not asking me what we did to prevent a temperature rise. I can't give you an answer to that, and I don't want to take my time to guess at these things here. I have got my own business to attend to.

Q213. I know that, but you have had considerable experience in these operations, haven't you?

A. We have done considerable work, yes. [1157]

Q214. And you have made observations of change-overs in plants, haven't you? A. Yes.

(Deposition of Mark A. Postlewaite)

Q215. You have made observations of temperature changes during such change-overs, haven't you?

A. Yes, we have tried to notice those things.

Q216. And you know in this particular plant that during defrosting operations you had a temperature rise of two degrees in less than an hour's time, don't you?

A. Yes.

Q217. Now from that information are you unable to answer the question that I gave you as to what would be the temperature rise during this change-over in a period of 48 hours, assuming that there was 'nothing done, no other instrument put in the room or no other freezing medium put in the room, during that change-over period?

A. Well, I wouldn't tell you that.

Q218. You couldn't tell me that? A. No, sir.

Mr. White: Repeated examination along this line is objected to because the witness has unequivocally stated that he didn't know that; he knows nothing about the temperature.

Mr. Lyon: You don't need to argue the question.

Mr. White: I am not arguing.

Mr. Lyon: What are you doing?

Mr. White: I am merely objecting to the question. [1158]

Mr. Lyon: No, you are not. There is no question before the witness.

Mr. White: I am merely objecting.

Mr. Lyon: You are not objecting. There is no question before the witness.

Mr. White: I can object if I want to to this course of examination, attempting to elicit from this witness something as to which he testified he knows nothing.

(Deposition of Mark A. Postlewaite)

Mr. Lyon: He has not so testified, not by a long ways.

Mr. White: He has testified, Counsel, that he does not know the rate of temperature rise that occurred out there.

Mr. Lyon: He has testified under certain conditions, and I am asking under comparative conditions what the temperature rise would be.

Q219. Would you assume that the temperature rise would under the conditions I have stated be greatly different from the temperature rise rate during defrosting?

A. That is a hypothetical time or is this what actually took place out there?

Q220. I am asking that as a hypothetical question.

A. Well, the temperature rise is dependent on many things. First, heat loss through a wall; second, the use of doors; third, how much cold stuff is in there. If you have got one locker filled with 100 pounds of stuff the temperature will jump just like hitting a drum with a rock; it will [1159] just bounce. If you have 300 lockers in there and they are full of cold storage produce, you have got 300 times 100 pounds to a locker; you have got 30,000 pounds in there, and when it is down to five degrees your temperature fluctuations cannot change very fast. You have got an inertia there, a flywheel effect, of the cold storage produce that is refrigerated, and your temperature rise will be considerably slower. Now I don't know how much produce there was in those lockers at any time, and I don't know how many lockers were full at the time that change-over was made.

Q221. Do you know how many lockers were filled, if I may interrupt just a minute, or what the use of the lockers

(Deposition of Mark A. Postlewaite)

was at the time you made this observation that you have testified to of a two-degree rise in less than an hour?

A. It was about a third of the lockers were occupied, were sold to customers. That is all I do know. At the time I know I requested information, but most fellows don't like to tell you, because that gives an idea of how much—

Q222. You under any conditions are not able to answer the question or to state an opinion on any basis of assumption as to what the temperature rise would have been if this change-over had required four days of men continuously going in and out of those doors to make the change-over? A. No, I could not.

Q223. You would not hazard a guess? [1160]

A. No.

Q224. By making any assumption that you wanted?

A. I don't think so.

Mr. White: The question has been answered many times. The witness has testified that he doesn't know.

Mr. Lyon: Just let the witness answer.

A. We would be so far off that it would make me look foolish, no matter what I said. That is just like guessing as to how far a Japanese balloon is going to fly. They find them in Wisconsin and the Pacific Coast and in the Pacific. That is too indefinite. I certainly would not guarantee that. I wouldn't take a contract to do any work and make out a guarantee on that. I wouldn't stick my neck out at all.

Q225. You certainly would not take a contract and guarantee the contents of a locker room, making a change-

(Deposition of Mark A. Postlewaite)

over of that character in four days, that it would not be materially above freezing, would you?

A. I would not guarantee temperatures unless I had full control of all variables, and I wouldn't have it there.

Q226. Now you would not take a contract to make a change-over of this character, then, which would require three to four days to do, without providing some auxiliary refrigeration, if you were required to guarantee the contents of the room, would you?

Mr. White: That is objected to as incompetent, irrelevant- [1161] vant and immaterial; obviously has no reference to anything that occurred at Yamhill.

A. If I had a job that was going to have to be done for any extended length of time which I could not control, I would make some preparation to put some additional refrigeration in.

Q227. Otherwise you would not be responsible for what happened to it, would you?

A. Be responsible? I would not stick my neck out unless I had full control of all variables, which we would not have.

Q228. Now your company did make this change-over at Yamhill, didn't it?

A. We made the change-over at Yamhill.

Q229. Did you make any provision for stand-by refrigeration of the locker room during the time that that change-over was made?

A. I don't recall that we did.

(Deposition of Mark A. Postlewaite)

Q230. You don't recall having put any dry ice or any other refrigerant in the locker room to keep the temperature—

A. If there was any dry ice put in there it was put in by Mr. Trullinger himself. We didn't do so.

Q231. You didn't have anything to do with it?

A. No, sir.

Q232. The Carrier company, whom you represent, now in- [1162] structs in the installation of water defrosting units, does it not?

Mr. White: That question is objected to as utterly immaterial, as to what the Carrier Corporation now instructs.

A. The Carrier Corporation furnishes us Carrier equipment that has water headers in it.

Mr. Lyon: Q233. And also has published a booklet on the use of that system in water defrosting, I believe?

A. If they do, I haven't seen it.

Q234. You have installed such Carrier units using water defrosting, haven't you?

A. Army jobs; yes, sir.

Q235. Quite a number of them?

A. On Army jobs; yes, sir.

Q236. You know that the Carrier Corporation was sued by the Refrigeration Engineering Company, do you not? A. No, sir.

Q237. You didn't know that? A. No.

Q238. Never heard that? A. Never heard of it.

Q239. How long have you represented the Carrier Company as an agent?

A. Well, as an agent—we are not their agents now. We are dealers. We distribute their products in this

(Deposition of Mark A. Postlewaite)

area. [1163] Under the present franchise it has been—since we got it in December or January, somewhere along in there, 1938—December of 1938 or January, 1939—and previous to that I was working, as I said before, as an employee of the Electrical Products, who had the Carrier franchise for this area and other areas.

Q240. You have installed industrially, outside of Army jobs, water defrosting units, haven't you?

A. Yes.

Q241. When is the last such job that you installed?

A. Oh, this last winter.

Q242. When after this Yamhill job was the first one that you installed?

Mr. White: This examination is objected to as irrelevant and immaterial unless it appears that the water defrost systems to which counsel now refers have something to do with the water defrost systems referred to in the direct examination.

Mr. Lyon: Just answer the question, please.

(Last question read.)

A. Well, the Yamhill one was not the first one installed. It is the first one we have any record of.

Q243. When after this Yamhill one was the first water defrost system that you ever installed? That is what I am speaking of—not the Carrier system.

A. We installed one at Glacier Bay Oyster Company in [1164] North Bend, Washington.

Q244. Was that a Re-cold unit? A.. No, sir.

Q245. Whose unit was it? A. A Carrier unit.

Q246. When is the first time you became acquainted with the Re-cold unit?

A. I think it was 1941 or 1942.

(Deposition of Mark A. Postlewaite)

Q247. You never heard of it before that?

A. Well, I knew that Re-cold coils were sold by a dealer here in town, but we had never had any business dealings with this dealer and I didn't see anything in his place, but this that you mention was a Re-cold coil sold by the Northwest Baker Ice Machine Company and installed by them at the Portland Provision Company.

Q248. When was that installed?

A. Well, I couldn't tell you, but it is previous to my being called in there to do their work.

Q249. How long was that after the Yamhill job?

A. Oh, a couple of years.

Q250. So you did know of the Re-cold water defrost system within a couple of years after this Yamhill job?

A. That is right.

Q251. You have stated that when this insulated wall was put in around this Carrier unit at Yamhill in the pre-cooling [1165] room there were doors placed in the wall. Where were those doors placed?

Mr. White: I object to the question. I don't recall that the witness said doors were placed in any wall.

Mr. Lyon: Yes, he did. He said he opened them and closed them during defrosting.

Mr. White: Now, for my purpose, what doors in what wall are you referring to?

Mr. Lyon: I think the witness understands the question. You understand the question, don't you Mr. Postlewaite?

A. Well, there were doors or openings that could be closed put in the insulated wall so that we could reach or twist the handle or lever that we rotated the spray pipe with.

(Deposition of Mark A. Postlewaite)

Q252. Was that the only door that was in that insulated wall? A. That is the only one that I recall.

Q253. How big a door was that?

A. Oh, big enough to get both hands in, if you had to, with a pipe wrench.

Q254. About what dimensions?

A. Probably a half a foot by a foot.

Q255. And that door was allowed to remain open during defrosting, wasn't it?

A. It had to be, to rotate the handle.

Mr. Lyon: That is all. [1166]

Redirect Examination

By Mr. White:

Q256. Mr. Postlewaite, I would like to have you clarify your reference and description of this operating handle to which you last referred.

A. Well, it was at right angles to the axis of the pipe, the sprinkler pipe, and by moving that back and forth the sprays were moved in the same angle that the handle was rotated.

Q257. Was it necessary to go inside this unit-containing compartment to operate the handle?

A. No, you couldn't get in there. All you could get was your hand in there to rotate it.

Q258. You testified on cross examination with reference to the time required to defrost the coil, the time being different when the water pressures were different; is that true? A. That is what I meant to convey.

Q259. Would the time be greater or lesser with increasing water pressure?

A. With increasing water pressure the time would be shorter.

(Deposition of Mark A. Postlewaite)

Q260. During defrosting of the coil was the interior of the compartment within which the Carrier unit was insulated in air communication with the locker room?

A. The interior of the coil was. The outside of the [1167] housing was open and exposed where the hand-operating hold for the water sprinkler was.

Q261. You referred to the Yamhill water defrost system as not being the first water defrost system within your recollection; is that true?

Mr. Lyon: That is objected to as not being within the pleadings, and any questions directed thereto are outside the pleadings.

Mr. White: Counsel, you asked the witness a question whether he knew of any other water defrost systems—

Mr. Lyon: No, I asked him a question if he had made any after that; not before it.

Mr. White: Q262. Did you, Mr. Postlewaite, at any time when you were in the locker room, observe a temperature-measuring instrument of any kind and at the same time observe a time-indicating instrument so that you could accurately determine the rate of temperature rise?

A. No. You want to know how I did it?

Mr. White: No, if you never measured it, that is all I want to know.

Recross Examination

By Mr. Lyon:

Q263. How did you determine the rate of temperature rise, Mr. Postlewaite? I want you to have sufficient time to say everything you want. I don't want to shut you off, even if [1168] Mr. White does.

(Deposition of Mark A. Postlewaite)

Mr. White: That is inferring something that certainly is not true, as evidenced by the fact that I might have shut him off during cross examination if I had not been somewhat indulgent.

A. Well, at the start of the water defrosting period we could start from upstairs in the—not the lobby but the store proper, where you had a clock on the wall, and go down and start the defrosting water and then come back up and go into the room and come back out, and then watch the clock and then go back; and we would listen to see if anybody flushed the toilet in the meanwhile, because if they did the water pressure went to hell. That is all there is to it.

Mr. White: Q264. You observed the temperature in the locker room at the same time?

A. We would look at it, yes, and then we would come back out there and stand there and watch the clock, you see, and then we would stand right outside and listen. That is the truth.

Q265. Watching the thermometer at both ends of the cycle, too? A. That is right.

Mr. Lyon: That is all.

Mr. White: That is all. [1169]

Mr. White: In connection with the Postlewaite testimony, we offer Y-25, which is identified by Mr. Postlewaite with relation to the structure of the diffusion unit in the Yamhill plant.

Mr. Lewis Lyon: No objection.

The Court: That is the control cooling Carrier cold diffuser?

Mr. White: That is right.

The Court: All right.

(The document referred to was received in evidence and marked Y-25, Plaintiff's Exhibit.)

Mr. White: We will now call W. C. Hulse to the stand.

W. C. HULSE,

called as a witness by and in behalf of the plaintiff, having been first duly sworn, was examined and testified as follows:

The Clerk: Your name, please.

The Witness: W. C. Hulse; H-u-l-s-e.

The Clerk: Your address?

The Witness: San Francisco.

The Court: Whereabouts?

The Witness: 754 Eighteenth Avenue. [1170]

Direct Examination

By Mr. White:

Q. Mr. Hulse, what is your present position?

A. Pacific Coast representative of the Vilter Manufacturing Company.

Q. In what business is the Vilter Manufacturing Company engaged?

A. The manufacture of refrigeration and air conditioning equipment.

The Court: Is that spelled V-i-l-d-e-r?

The Witness: V-i-l-t-e-r.

The Court: Vilter Manufacturing Company?

The Witness: Yes, sir. Here is a card.

(Testimony of W. C. Hulse)

By Mr. White:

Q. Did you ever work for a company known as Electrical Products, Consolidated? A. Yes, sir.

Q. At what time did you work for that company?

A. 1935 to 1937.

Q. Where was the company's headquarters?

A. Seattle, Washington.

Q. Where did you work?

A. State of Oregon, headquartered at Portland.

Q. What was your position as representative in Oregon?

A. I was in charge of the Oregon operations. [1171]

The Court: When did you conclude? Do you recall the month and the year?

The Witness: March.

The Court: 1937?

The Witness: That is right.

By Mr. White:

Q. Then you were continuously with Electrical Products from 1935 to March 1937?

A. That is correct.

Q. Did you do any work in connection with a job for Trullinger & Eustice at Oregon near Portland?

A. I sold the job to Mr. Trullinger.

Q. To what job do you refer?

A. The locker plant installation at the Trullinger & Eustice store in Yamhill, Oregon.

Q. Just generally what was the nature of that locker plant installation?

A. It was an installation consisting of two basic rooms, one known as the chill room, the other as the freezer.

(Testimony of W. C. Hulse)

Q. I will inquire into that later. Just give me a general description as to the nature and purpose of that job or plant.

A. It was an installation for freezing and holding fruits, vegetables and meats for various customers who would rent space. [1172]

Q. What did you have to do with this plant?

A. I sold it.

Q. You sold it to whom?

A. Fred L. Trullinger.

Q. And following this sale to Mr. Trullinger, what familiarity did you have with the job?

A. Of course during a sale you are involved with the design; after a sale you always show the customer the interest of seeing the plant, going over it with the customer. That is a courtesy you give him for his money.

Q. Who had charge of the work?

A. In what respect do you mean, charge?

The Court: Physical installation.

The Witness: Anton Broms.

By Mr. White:

Q. Who was the overall boss on the job?

A. I was.

The Court: Why can't we lead him a little bit? The long and short of it was, you negotiated the contract, had general charge of the operation—

The Witness: That is right.

The Court: —wrote and signed the contract, discussed the design—

The Witness: That is right.

(Testimony of W. C. Hulse)

The Court: —layout and need and had Broms put it in? [1173]

The Witness: That is right.

By Mr. White:

Q. Were you present at Yamhill during the construction of the plant? A. Yes, sir.

Q. Approximately how often?

A. Well, every few days.

Q. Now were you familiar with what we might call the building layout? A. Yes, sir.

Q. Will you describe it, please.

A. The location of the locker plant equipment as to the rooms was in the rear section, which had formerly been used for dry storage of the Trullinger & Eustice store. It consisted of one main room, as we called the locker room or freezer room, a small, you might say, anteroom that was used for chill purposes, the entrance of course to the freeze room being through the chill room so that the lower temperature wasn't open to the warehouse; the machine, the compressor equipment, that operated the temperature was installed in the basement underneath that.

Q. The two rooms were adjacent then?

A. Directly connected; yes.

Q. The chill and locker rooms?

A. Yes. [1174]

Q. Can you describe when first erected what the refrigeration equipment installed in each of these rooms contained? What did they contain? Take the locker room first.

A. You mean to say what was in the rooms?

Q. Yes. A. As to product or equipment?

(Testimony of W. C. Hulse)

Q. Either or both.

A. The locker room being a square was filled with rows of wooden and wire mesh locker spaces, we will say approximately 10 cubic feet each, with a little lock on it. The chill room was simply a room where it was designed to take the animal heat out of meats that came in. It had rails around it for the hanging of meat. In each room the temperature was controlled by a separate Carrier cold diffuser.

Q. Now you refer to separate cold diffusers. Can you be more specific as to what and where they were?

A. In the chill room we used a 15 K-4 ceiling mounted type Carrier diffuser which operated on an air switch with what we called—well, it is a humidity control.

Located in the same room but on the floor and in a corner was a 15 Q-2 Carrier cold diffuser, which was installed to maintain the lower temperature of the freezing room, or locker room as you call it.

Q. Is that diffuser to which you now refer in existence? [1175]

A. Yes.

Q. Where?

A. In the same locker plant.

Q. Were you present when this plant went into operation, first went into operation?

A. Yes, sir.

Q. Do you recall whether at that time produce had been placed in the locker room?

A. Well, I remember the first piece of what you might call produce, when that was put into the locker.

Q. Had customers started using the lockers?

A. No. The first material that went in was before the customers actually had used it.

The Court: When was that? When did the first material go in?

(Testimony of W. C. Hulse)

The Witness: November 11th.

The Court: That was a turkey?

The Witness: That is right.

The Court: It is still there?

The Witness: That is right.

The Court: When did the customers start using it?

The Witness: I would say within a day or two after that first famous turkey went in.

By Mr. White:

Q. When to the best of your knowledge and recollection [1176] was the locker plant put in operating condition?

Mr. Lewis Lyon: Objected to as already asked and answered.

The Court: Overruled.

The Witness: Well, it actually was started on its pull down to final temperatures November 11th or—as to the time of day, I think when the turkey was put in it wasn't—

Mr. White: Perhaps I can clarify that.

Q. When I say “operating condition” I mean when was it first put into operation with the locker room brought down to refrigerating temperatures.

A. It was down to temperature on November 11th.

Q. Was any equipment used for defrosting the refrigerating equipment, specifically the diffuser unit?

The Court: There are two diffusers now. I didn't know that.

Mr. White: That is correct, your Honor.

The Court: What method of defrost did you put on the big one on the floor in the corner?

(Testimony of W. C. Hulse)

The Witness: Water defrost.

The Court: When you installed it?

The Witness: It was sold hot gas.

The Court: Did you use hot gas?

The Witness: No.

The Court: What method of defrost did you have on the [1177] other ceiling unit?

The Witness: That is a high temperature unit. You don't require defrosting.

The Court: You don't require defrosting?

The Witness: No. The coil temperature is above the freezing temperature normally and then of course there is the off peak, if it does frost a little it is so close to the defrosting temperature that the minute that it is off on an off-cycle the ice drops off as water.

The Court: You shut it off then merely?

The Witness: No, it is automatic.

The Court: It is automatic?

The Witness: Yes.

The Court: So that the temperature of the chill room was above freezing?

The Witness: Well, it was designed to be above freezing. At the time we started the freezer plant we got into a little difficulty there and it got below freezing. That was the reason for the insulated section around the floor mounted, or the 15 Q-2 cold diffuser.

The Court: When was that put in?

The Witness: Within two weeks.

The Court: Within two weeks?

The Witness: After the original installation.

The Court: After you put the turkey in? [1178]

The Witness: That is right.

(Testimony of W. C. Hulse)

By Mr. White:

Q. As I recall your answer to the question concerning the hot gas, being that you did not use hot gas, what do you mean by use, if I am correct in that respect?

A. It was not turned over to the customer with a hot gas defrosting system on it.

The Court: Was it turned over to the customer with a water defrosting system?

The Witness: Yes, sir.

The Court: Do you know anything about that water defrosting system?

The Witness: I think I know quite a little about it.

The Court: Do you know how it worked?

The Witness: Yes, sir.

The Court: What is this fellow's name, Tony?

The Witness: Broms.

The Court: Did Tony Broms consult you about it?

The Witness: Yes, sir.

The Court: Do you remember when you installed the equipment there with the hot gas in it, in relation, let us say, to November 11th? You have that date fixed in your mind apparently as turkey day.

The Witness: That was the day it started. That is easy to remember. [1179]

The Court: With relation to that day, when did you have the equipment in there as you originally contracted with them to put it in with hot gas?

The Witness: A few days before that.

The Court: A few days?

The Witness: Yes.

The Court: Then you put the hot gas on?

(Testimony of W. C. Hulse)

The Witness: That is right—well, now, let me understand it. During the time that they first brought the machinery there and were installing it, after all it isn't a big job, it didn't take a long time, I wasn't there, the only thing I knew about anything is that—well, it is a receiver condenser on that type of equipment. We had some trouble with it and replaced it, and Tony came and asked about changing it to water defrost. We discussed that and decided that that would be the best operation under those conditions.

The Court: That was before you turned it over to Trullinger & Eustice?

The Witness: Before we turned it over to Trullinger & Eustice.

The Court: You did put the system in, however, with the hot gas and operated it?

A. Well, when I say operated, I wouldn't say it was ever down to temperature. It was turned on.

The Court: It was turned on? [1180]

The Witness: That is right.

The Court: Did the customer complain?

The Witness: No, it wasn't the customer's property as of that time.

The Court: You decided to change it?

The Witness: After they had the difficulty; yes.

The Court: Did you make some change in your contract? The contract calls for hot gas.

The Witness: The contract never was changed on its face. The agreement on it was just a matter of talking to Mr. Trullinger.

The Court: Then you put the water defrost in?

(Testimony of W. C. Hulse)

The Witness: That is right.

The Court: And turned it over to them with the water defrosting apparatus?

The Witness: That is correct.

The Court: In the open chill room?

The Witness: Yes.

The Court: And within two weeks—

The Witness: Under those conditions when it was in the open chill room of course he complained, rightfully so, because the cold diffuser unit itself was bringing the temperature of the chill down below its guaranteed operating point.

The Court: Then when you put the water on it it froze?

The Witness: That had nothing to do with it. [1181]

The Court: Did the water freeze when it was below freezing?

The Witness: No, no.

The Court: It did not?

The Witness: No. After we put the insulated chamber around it of course—during all of this time the freeze room itself would operate all right.

The Court: Yes, I understand.

The Witness: It was only the chill room where it was creating difficulty. As soon as we got the unit insulated away from the chill room then the customer was satisfied. By Mr. White:

Q. Why didn't the customer want the chill room brought down to as low a temperature as existed while the diffuser was openly exposed to the room?

Mr. Lewis Lyon: That is objected to as calling for a mental conclusion of a party not here.

(Testimony of W. C. Hulse)

The Court: Yes. I think it probably does.

We will have a short recess.

(Short recess.) [1182]

Q. Mr. Hulse, did the contract with the customer involve any specifications with respect to locker and chill room temperatures? A. Yes, sir.

Q. What were they, please?

A. Thirty-five degrees in the chill room; 10 degrees in the locker room.

Q. In other words, the refrigeration equipment installed was to operate—to maintain those temperatures?

A. That is correct.

Q. Did it maintain that temperature condition in the chill room when first operated? A. No.

Q. What temperature condition existed in the chill room?

A. It got a lot lower. We got down into the 20s.

Q. What is the basis for your statement that it dropped as low as the 20s?

The Court: Isn't that cross examination?

Mr. Lewis Lyon: That is objected to.

Q. By Mr. White: Why? How did you know?

Mr. Lewis Lyon: That is objected to as cross examination.

The Court: One witness testifying to a fact is sufficient to prove it. You are not going to cross-examine him, are you?

Q. By Mr. White: Did you make any temperature measure- [1183] ments in the chill room?

A. Yes, sir.

Mr. Lewis Lyon: The same objection.

The Court: Overruled.

(Testimony of W. C. Hulse)

Q. By Mr. White: How did you make those temperature measurements? A. With a thermometer.

Q. And where was the thermometer?

A. On the wall.

Q. Did you have any other means of obtaining an indication of the temperature condition in the chill room?

A. Oh, yes, we froze the drain water from the 15 K4 diffuser in the bucket we had to catch it originally.

Q. The 15 K4 diffuser being the one—

The Court: The ceiling?

Q. By Mr. White: —identified as having been mounted on the ceiling? A. That's correct.

Q. For what purpose was that water used?

A. That water was really waste water, but before we had it worked out so that it drained out of the room, we just ran it into a bucket, and that water froze up.

The Court: That is the water from the ceiling?

The Witness: From the ceiling unit, yes.

The Court: From the diffuser? [1184]

The Witness: No. That coil operates normally right at or just above or slightly below the freezing temperature, and as it cycles the slight frost that gets on to it will defrost and it ran down through the drain and into the bucket.

Q. By Mr. White: Was that the humidifying water?

A. Well, that unit was designed to maintain high relative humidity and a temperature of 35 degrees. You couldn't say that the water was the humidifying water. It was the water that the unit had actually taken out of the air, which would be really the reverse.

The Court: That water froze?

(Testimony of W. C. Hulse)

The Witness: Yes, in the drain bucket.

The Court: But the defrosting water, on the other hand, did not freeze?

The Witness: No, sir.

Q. By Mr. White: While the temperature condition which you have described existed in the chill room, the diffuser unit was defrosted by water; is that correct?

The Court: By "diffuser unit" you mean the one on the floor?

Mr. White: The one on the floor.

The Witness: Yes.

Mr. Lewis Lyon: That is objected to as leading, your Honor.

The Court: Well, he has answered it. [1185]

Mr. Lewis Lyon: I move to strike the answer.

The Court: Motion denied.

Q. By Mr. White: Will you describe the water defrosting means?

A. The water defrosting consisted of a pipe run through the cold diffuser, that is, the 15 Q2 cold diffuser, just over the top of the coil section. We merely drilled a hole into the casing, ran it through, and fastened the dead end of the pipe to the opposite end of the diffuser. On the outside we had—

Q. May I interrupt. How was it fastened at the dead end?

A. With a pipe strap, just an ordinary pipe strap.

Q. Have you personally seen that pipe strap?

A. It was in the diffuser the last time I saw it.

Q. When was that? A. August of '45.

(Testimony of W. C. Hulse)

Q. Continue, please.

A. Just at the outside end of the perforated pipe, we had an el, a short piece of pipe some eight inches long, attached to a hose and had enough length in it to permit us to rock the diffuser, or, the defroster pipe back and forth so that the spray could be concentrated evenly over the entire coil area, on the top part of the coil area. That pipe ran on down to the floor.

Q. What pipe? [1186]

A. I should say the hose—pardon me—ran on down to the floor, where underneath that, directly underneath the unit it was connected to the main city water. At that point there was a three-way stop and drain valve, as they are normally called.

Q. Now, what specifically was the relation between the city water line and the hose?

A. Well, it was a continuation of it whenever the valve, the three-way valve, was open.

Q. That connected through the valve?

A. That's correct.

Q. Now, what happened to the water which was sprayed over the coil from this spray pipe overlying?

A. Well, you mean where did it go after?

Q. Yes.

A. After it had done its work of defrosting or melting the ice it went right out through the bottom of the unit out the drain.

Q. Will you describe the bottom of the unit, please?

A. Well, it is a metal drain pan, grooved, slanted towards the center, where there was a drain pipe that ran directly through the floor.

(Testimony of W. C. Hulse)

Q. Where did the pipe go after it passed through the floor?

A. Well, originally it didn't go any place, we just ran [1187] it out on the ground. The basement below that store was just dirt. Until such time as it made a big mud puddle down there, why, we just let it run on the floor. Finally they put an extension on to it and ran it out into the back yard. [1188]

Q. I will ask the witness to refer to Exhibits Y-14 and Y-15, and ask you if you are familiar with what these photographs appear to show.

The Court: Isn't this merely cumulative, counsel?

Mr. White: It is with relation—

The Court: To what they show. In the first place you have the pictures, in the second place you have the stipulation concerning the pictures, and in the third place you have the valve and you have Tony Broms' testimony who explained this in detail.

Mr. White: It is cumulative with relation to Broms.

The Court: If you consider it important, you can go ahead and put it in.

By Mr. White:

Q. Now, Mr. Hulse, while the floor carried diffuser was exposed in the chill room, as you have described it, did you personally then operate this water defrost system? A. Yes, sir.

Q. Now will you describe what you did in operating this defrost system?

A. You mean to just go through the process?

(Testimony of W. C. Hulse)

Q. Yes. Explain the steps through which you went in defrosting.

A. The first operation, we stopped the liquid supply using the stop valve just ahead of the expansion valve, [1189] stopped the fan—

Q. May I interrupt. When you say liquid supply, you mean refrigerant? A. That is right.

Q. Yes.

A. Stopped the fan, closed the damper on the return air side of the diffuser. The damper was over in the freezer room.

Q. The locker room?

A. Yes, in the locker room. We closed it so we didn't splash water out into the locker room.

Sometimes we would turn the compressor off, sometimes not. Then turned the water on. At first we used to be careful to look through the inspection plate hole in the side of the unit to be sure that all the ice was off. As soon as it was we just reversed that operation.

Turning the water on of course required that you go downstairs, and when you turned it off—that is the defrosting water—you of course opened the drain cock so that the water would drain out of the defroster line.

Q. Now first you opened the valve, is that correct?

A. To turn the water on; yes, sir.

Q. Then what did you do after you opened the valve?

A. After you have defrosted then you reverse it.

Q. No, I am just asking what was your next step after [1190] you opened the valve down in the basement.

A. We go back up and rock the defroster so that it covered the coil, and you look through the hole to watch to see how well you are doing the job.

(Testimony of W. C. Hulse)

Q. Then that spraying operation continued how long?

A. Well, normally four to six minutes.

Q. And what observation did you make in the coil while the defrosting was going on? You referred to having peeked in.

A. Just watch the ice disappear.

Q. Did you observe the presence or absence of ice at the end of the defrosting operation?

A. There wouldn't be any ice then.

Q. What happened to that ice?

A. The water melts it and it goes away down through the drain.

Q. Now having completed the operation, the spraying operation, what did you then do? The water is still running out of the spray pipe.

A. Go down and drain the water, open the drain cock to bleed the line back, go back up open your damper in your locker room to the return air, turn your fan on, turn your thermal expansion valve on, and if the machine had been turned off you turn the machine on.

Q. And when you say drain the water out of the line [1191] by opening the drain cock, to what line do you refer?

A. The line and hose and the perforated pipe through the diffuser unit.

Q. And that water drained where?

A. The water in the vertical section would drain back into the basement. The drain pipe itself was slightly slanted. It would drain into the unit the minute the valve was open and the air could come up through the pipe.

Q. Did you instruct anyone else how to conduct the defrosting operation?

A. Yes, sir.

Q. Who?

(Testimony of W. C. Hulse)

A. Mr. Trullinger, Mr. Eustice, some of his employees, and later customers we took out to show the job to.

Q. Now you referred to a damper at the bottom air inlet from the locker room to the diffuser. What was the purpose of that damper?

Mr. Lewis Lyon: That is objected to as a misquotation of the witness' testimony.

The Court: He didn't say it was at the bottom.

Mr. White: That is right.

Q. You referred to a damper which, as I recall it, was closed.

A. That damper was closed and closed the return air duct into the bottom of the unit, and was installed merely to [1192] keep the water from splashing during the defrosting operation out into the locker room.

Q. It was normally open then?

A. During the running operation; yes.

The Court: If it splashed into the locker room what would happen to it?

The Witness: It made an ice-rink.

The Court: It made an ice-rink? It froze?

The Witness: Yes, sir.

The Court: Then do you know the temperature of the room inside the insulated unit?

The Witness: You mean the locker room or the little room?

The Court: The little room where the freezer was.

The Witness: That temperature was always at the locker room temperature or below.

The Court: Was it there when you were defrosting?

(Testimony of W. C. Hulse)

The Witness: It would still be always at that range.

The Court: It would be at that or below?

The Witness: That is right.

The Court: But the water that went into one room which was higher than this room froze and the one that went into the little insulated room didn't freeze?

The Witness: No, it would freeze. The thing is, it is the quantity of water that comes that stops it from freezing as it goes through the unit over the coil. In other words, [1193] there is a temperature differential between the ice and the temperature of the water coming in, and as long as that water comes in fast enough it takes the ice away, melts it and takes it right on out and it drops through by its velocity weight. If that water splashes out of that unit, as sometimes it did, through cracks it would freeze on the floor underneath of the unit, the same as it did over in the locker room if it bounced out through that opening.

By Mr. White:

Q. On what floor?

A. The floor right directly underneath the 15 Q-2 cold diffuser, inside of the insulated area, the little cover room we put around the unit.

Q. Now did you personally operate the water apparatus after the insulated wall was placed about the unit?

A. Yes, sir.

Q. And about how often did you have occasion to operate it?

A. Well, at first every few days, later on why only occasionally when we had a customer to show the installation to.

(Testimony of W. C. Hulse)

Q. And how did its operation by you after the wall was placed about the unit compare with the description you have given concerning your operation of it before?

A. As far as the actual defrosting of the coil is concerned, [1194] the insulated wall around the case had no effect upon the defrosting of the unit. The only thing that wall has in this thing is that before we put that—

The Court: His question was, how did you operate it as compared to before the wall was in.

The Witness: When we put the wall around it we put an extension handle onto the rocker of the diffuser so that it could be done without having to reach in through the insulated area.

By Mr. White:

Q. Why did you put this insulated wall around the unit?

A. To protect the chill room from the lower temperature of the cold diffuser.

Q. Did this water defrost system at the times to which you have referred and within your operation operate satisfactorily?

Mr. Lewis Lyon: Objected to as calling for a conclusion of the witness.

The Witness: Yes, sir.

The Court: Well, so far as you know.

The Witness: Well, I answered the question that way because I would say that it was successful if it would take the ice off within that period, and I to my knowledge have seen the thing defrost and run three or four days without having to defrost again. [1195]

The Court: All right.

(Testimony of W. C. Hulse)

By Mr. White:

Q. Now before the insulated wall was placed about the unit, did you measure the temperature in the locker room? A. Yes, sir.

Q. And how did you measure the temperature?

A. Thermometers.

Q. What did you find the temperature to be?

A. It met the guarantee.

Q. And what was that? A. Ten degrees.

Q. Ten degrees Fahrenheit? A. That is right.

Q. Any variances from ten degrees?

A. Oh, naturally. As the machine would go through its cycling range there would be a few degrees either way, but we would consider it as the guarantee of ten degrees because any refrigeration fluctuates from one temperature to another.

Q. When you say "few degrees" what do you mean?

A. Two to three either way.

Q. And did you measure the temperature conditions in the locker room after the insulated wall was placed about the unit? A. Yes.

Q. What did you find them to be? [1196]

A. The same.

Mr. White: I will ask the Clerk to identify this drawing, please, as Plaintiff's Exhibit Y-28.

(This document referred to was marked Plaintiff's Exhibit Y-28 for identification.)

By Mr. White:

Q. Mr. Hulse, were any drawings made at the time, or have there been any drawings made to your knowledge,

(Testimony of W. C. Hulse)

of the actual water defrost system installed? In the installation of the job were any drawings prepared?

A. Not to my knowledge. [1197]

Mr. Lewis Lyon: Objected to as a complex question, your Honor. I don't know what an answer to it would mean.

The Court: Well, he answered: No, not to his knowledge. So apparently the witness understood it.

Mr. Lewis Lyon: Well, it had two propositions; one was any time, and one was at the time the installation was made.

The Court: His answer to both, then, is no.

Mr. Lewis Lyon: That is my understanding.

Q. By Mr. White: I will hand you a pencil drawing, identified as Plaintiff's Exhibit Y-28, and ask you if you are familiar with it.

A. Yes, sir.

Mr. Lewis Lyon: Your Honor, I think he foreclosed himself from that answer by the previous question: Was any drawing ever made of the system at any time.

Mr. White: Well, what I am talking about—I will be glad to clarify that—I mean engineering drawings, or was the plant installed, the water defrost system installed pursuant to—

The Court: That isn't what you asked him.

Mr. Lewis Lyon: That isn't what you asked him.

Q. By Mr. White: The point I would like to bring out, to clarify it, is: Are there, to your knowledge, any original drawings showing actually the details and layout

(Testimony of W. C. Hulse)

of that water defrost system, made in the course of the work done by [1198] Electrical Products?

A. No, sir.

Mr. Lewis Lyon: That is objected to as already asked and answered.

Mr. White: Well, I am clarifying it.

The Court: Go ahead. The objection is overruled. Go ahead and ask him some more questions.

Q. By Mr. White: Now, Mr. Hulse, will you identify, if you can, the drawing which you now hold?

A. This is—

Mr. Lewis Lyon: That is objected to on the ground there is no foundation laid for it.

The Court: May be is laying the foundation. I don't know. He asked him to identify it.

The Witness: This is a sketch that I drew up, myself.

Q. By Mr. White: When did you draw it?

A. The 19th day of August.

The Court: 1946?

The Witness: 1946, right.

Q. By Mr. White: What does that sketch show?

Mr. Lewis Lyon: That is objected to on the ground that the sketch is the best evidence of what it shows.

The Witness: Well, it shows—

The Court: Just a moment.

The Witness: Pardon me. [1199]

The Court: I think the sketch is the best evidence of what it shows. I think your question is improper, but you can ask him what he was attempting to show.

Q. By Mr. White: Well, is this a sketch—

(Testimony of W. C. Hulse)

The Court: What were you attempting to show when you drew the sketch?

The Witness: I was attempting to show in one part the layout, the relationship of the rooms—the diffusers to the rooms, and the approximate location of the defrosting equipment; an elevation, and an end-view of the unit itself with its defroster, in its relation to the freezer room.

Q. By Mr. White: You were attempting to illustrate your recollection of it?

A. That's correct.

The Court: You drew that entirely from recollection?

The Witness: That's right.

Q. By Mr. White: Now, what unit—

The Court: The last time you had seen that in operation was when? In 1937?

The Witness: That's correct.

Q. By Mr. White: Then the drawing is illustrative of your recollection as of that time; is that correct?

A. That's correct.

Mr. Lyon: I would like to ask one question on this, if I might, to clarify the record right there. [1200]

Isn't it a fact that before you drew this sketch you went into the Trullinger & Eustice store and inspected what was there?

The Witness: That's correct.

Mr. Lewis Lyon: Inspected the room set-up and the 15Q2 cold diffuser, as it is now located in the locker room?

The Witness: That's right. It is different from this drawing.

(Testimony of W. C. Hulse)

Mr. Lewis Lyon: It is the same unit, is it not?

The Witness: That's correct.

The Court: You can cross-examine him. I suppose you will get around to asking him if he ever saw a picture of Precool, or, what do you call it?

Mr. Lewis Lyon: Recold.

The Court: —Recold before he drew that?

Mr. White: We offer this sketch as Plaintiff's Exhibit Y-28.

Mr. Lewis Lyon: Objected to on the ground there is no proper foundation laid for it; further, it has no probative value whatsoever, not being a sketch made at the time of the supposed operation or installation, or it isn't in any way really connected with the operation, and is a picture that anybody might draw at any time.

Mr. White: It is not anybody. This witness drew it to illustrate his recollection of what he actually saw. [1201]

The Court: Of course, if counsel desired, they could now have the witness on the witness stand go to the blackboard and ask him to draw what his present recollection is of the situation at that time, and that would be admissible. I think that all goes to the weight of it, rather than to its admissibility. I would observe that its weight is not overwhelming; I mean, nine years, and he has probably installed thousands of pre-cooling or refrigerating units in the meantime.

The Clerk: Is it admitted?

The Court: Admitted in evidence as Exhibit Y-28.

(Thereupon, the document referred to was marked as Plaintiff's Exhibit Y-28, and was received in evidence.)

[Note: Plaintiff's Exhibit No. Y-28 will be found in the Book of Exhibits at page 1241.]

The Court: Is that all of the direct?

Mr. White: No, your Honor. There is one matter concerning—

The Court: Will you be long? If you will, we will recess now.

Mr. White: I think we should finish in five or ten minutes.

The Court: All right.

Q. By Mr. White: Mr. Hulse, when do you recall last having seen the Yamhill Locker Plant and Refrigerating equipment with the water defrost system installed and the diffuser unit enclosed, as you have testified?

The Court: He just testified to that. I asked him a [1202] moment ago, and he said he saw it in 1937.

Q. By Mr. White: When in 1937?

A. October.

The Court: We will now recess until 2 o'clock.

(Whereupon, at 12:03 o'clock p. m., a recess was taken until 2:00 o'clock p. m. of the same day.) [1203]

(Testimony of W. C. Hulse)

Los Angeles, California; September 25, 1946; 2.00 o'clock p. m.

The Court: Proceed.

W. C. HULSE,

the witness on the stand at the time of recess, resumed the stand and testified further as follows:

Direct Examination (Continued)

By Mr. White:

Q. Mr. Hulse, during your operation of the water defrosting of the floor unit when it was in the insulated compartment, was there any change of temperature in that compartment?

Mr. Lewis Lyon: That is objected to on the ground the witness hasn't been qualified to answer the question.

The Court: I do not think there is a sufficient foundation for him to give an answer to that question. Objection sustained.

By Mr. White:

Q. Was there any damper door installed on the air outlet opening from the floor unit into the locker room?

A. The air outlet, the one at the top that discharged?

Q. That is right. A. No.

Q. Will you state whether or not you were in Portland on October 6, 1936? [1204] A. No.

Q. I beg your pardon, October 6, 1937.

A. Yes.

Q. Can you identify the signature on Exhibit Y-27?

A. That is my signature.

Mr. White: That Exhibit Y-27 is offered in evidence.

(Testimony of W. C. Hulse)

Mr. Lewis Lyon: Objected to on the ground there hasn't been shown any materiality whatsoever.

The Court: I cannot see the materiality of it. Was he in Portland October 6, 1937? What has that to do with water falling down over a coil?

By Mr. White:

Q. At that time had you inspected the Trullinger & Eustice plant?

A. That was the purpose of being in Portland at that time.

Mr. Lewis Lyon: I move to strike the answer as not responsive to any question asked the witness.

The Court: I think it answers it.

Did you inspect it?

The Witness: Yes, sir.

Mr. White: The exhibit, Y-27, now is offered in evidence.

Mr. Lewis Lyon: Same objection.

The Court: Same ruling. Objection sustained [1205]

Mr. Neave: Your Honor, it seems to me that this is corroborative of his having been in Portland on that day.

The Court: What is the materiality of it? What is the materiality of his inspection on that day?

Mr. Neave: It establishes the fact that he did inspect it on that day, and he has testified earlier that he was there in October, 1937, and he saw it operate.

The Court: I think he testified he was there in the fall of 1937, or in '37.

Mr. Neave: I think he said October.

(Testimony of W. C. Hulse)

The Court: But what if he was. What if he did inspect it? What is the materiality of that? What did he see?

Mr. Neave: He has already testified that in October, 1937, he saw it operate, saw the water defroster operate and operated it himself.

The Court: I don't recall his testimony to that effect.

Mr. Neave: Well, we can ask him.

Q. By Mr. White: Mr. Hulse, when you saw the plant in October of 1937, did you see the water defrost system, the apparatus?

A. Yes, sir.

Q. Did you at that time operate it?

A. I did, sir.

Q. Did it at that time operate satisfactorily?

A. Yes, sir. [1206]

Mr. Lewis Lyon: That is objected to as calling for a conclusion of the witness.

The Court: Objection sustained. Did it operate?

The Witness: Yes, it did.

The Court: Was it in the enclosed insulated room at that time?

The Witness: Yes, sir.

The Court: Did you operate it?

The Witness: I operated it, yes, sir.

The Court: You operated it in the same way that you described before?

The Witness: The same as I described.

The Court: How long a time did it take to defrost it at that time?

(Testimony of W. C. Hulse)

The Witness: About the same period as before, four to six minutes:

The Court: Four to six minutes?

The Witness: That's right.

Mr. White: We again offer the exhibit Y-27 in evidence.

The Court: Admitted.

Mr. White: As establishing the time.

The Court: Objection overruled. Admitted. The objection you were about to make is overruled.

Mr. Lewis Lyon: If I was going to make one. [1207]

(The document referred to was marked as Plaintiff's Exhibit Y-27, and was received in evidence.)

[Note: Plaintiff's Exhibit No. Y-27 will be found in the Book of Exhibits at page 1240.]

Cross Examination

By Mr. Lewis Lyon:

Q. Mr. Hulse, you recall having testified by deposition in this matter starting at Portland, Oregon, on the 23rd of August, 1945?

A. I don't understand.

The Court: Do you recall having testified in a deposition?

The Witness: Oh, yes; yes.

Q. By Mr. Lewis Lyon: Do you recall that at that time you represented to Mr. White and to myself that you couldn't conclude that deposition at that time because you were immediately called away and had to leave immediately? A. That's correct.

(Testimony of W. C. Hulse)

Q. Isn't it a fact that you didn't leave immediately but were in Portland all the next day?

A. If you will recall at that time, transportation was really a difficult problem. We were looking for—

The Court: Well, did you stay in Portland?

The Witness: Yes, I did.

Q. By Mr. Lewis Lyon: And you didn't leave that day at all?

A. I left the next afternoon on the—well, it was the next afternoon train. I forget what the name was; the [1208] Cascade or the Oregonian.

The Court: Or the Yamhill Special?

Q. By Mr. Lewis Lyon: Isn't it a fact that at the giving of that deposition in Portland you produced a document which was identified as Y-13?

The Court: I think he has the original deposition there?

The Witness: Would you repeat the question?

Q. By Mr. Lewis Lyon: Give him the question again. (The question was read.)

A. I don't believe I produced this. I believe that this had been sent to Mr. White some time prior and that he produced it at this meeting. [1209]

By Lewis Lyon:

Q. Isn't it a fact, Mr. Hulse, that you personally got that from the files of the Electrical Products Corporation in Seattle?

A. That is correct.

Q. Well then it is correct that you produced it?

A. Technically so.

(Testimony of W. C. Hulse)

Q. Now isn't it also a fact that on your direct examination in Portland, with reference to that document, that you testified as follows:

"Q. By Mr. White—"

The Court: Let him read it through first.

The Witness (Examining document)—

The Court: You have the original there?

Mr. Lewis Lyon: I have only my copy.

The Court: Better give him the original.

(The document referred to was passed by the witness.)

The Court: Do you want him to read from line what to what?

Mr. Lewis Lyon: Beginning with Question 54 and ending with the answer to Question 55.

The Court: When you have read it through, will you indicate and then counsel will ask you a question.

The Witness: Yes, I have read it.

Mr. Lewis Lyon: And that testimony, for the purpose of [1210] the record, is as follows:

"Q. I show you what appears to be an Electrical Products, Consolidated, invoice identified as Plaintiff's Exhibit Y-13, and ask you if you have seen it before and what it is, if you know.

"Mr. Lyon: Just a moment. Let me see that before you answer. Objected to on the ground that there has been no proper foundation laid.

"A. An invoice—

"Mr. Lyon: That is not the question you were asked. (Question read.)

"A. Yes, I have seen it before.

(Testimony of W. C. Hulse)

“Q. Do you know what it is?

“A. It is a notation of a final payment received from Fred L. Trullinger for the locker plant at Yamhill, Oregon.”

Q. You so testified? A. Apparently I did.

Q. And it is not true, is it?

A. No, it states within itself that it is a payment for the original. The original down payment.

Q. Are you acquainted with Mr. Carl E. Wilde, sitting here? A. Yes, sir. [1211]

Q. When did you first meet Mr. Wilde.

A. In 1939 or '40.

Q. Was that at the R. W. Weidline Company in Los Angeles? A. That is correct.

Q. Located on South Los Angeles Street, I believe it was, wasn't it? A. That is right.

Q. And at that time were you and Mr. Wilde not operating as co-receivers for the W. R. Weidline Company?

A. I believe for a time we were co-receivers for the R. W. Weidline Company.

Q. During that period of time do you recall any conversation that you had with Mr. Carl Wilde with respect to the Recold water defrost as introduced by the Refrigeration Engineering and by Mr. H. T. Jarvis?

A. I wouldn't know of any specific instance, no.

Q. Do you remember having a conversation with Mr. Wilde in which you condemned any system of water defrosting, claiming that you yourself had tried it, that it would not work satisfactorily, even with all the engineering assistance of the company that you had behind you, and

(Testimony of W. C. Hulse)

furthermore you knew that Mr. Jarvis—the Recold system would not work? A. That is not true.

Q. You say that is not true? [1212]

A. Positively.

Q. Did you at the Weidline Company at any time meet Mr. H. T. Jarvis?

A. I have known Mr. Jarvis for years.

Q. Did you meet him at the Weidline Company?

A. Yes.

Q. Do you recall a meeting at the Weidline Company at which were present Mr. Vering, Mr. R. W. Weidline, his two brothers, Mr. Carl Wilde and Mr. Gessell, at which time Mr. Jarvis brought in a Recold unit and demonstrated the water defrosting system?

A. That never happened in my presence.

Q. That never happened? A. That is right.

The Court: At any time?

The Witness: At any time.

By Mr. Lewis Lyon:

Q. Then you don't know of any conversation that was had at any such meeting, do you? A. That is right.

Q. Did you at any time at the Weidline Company make a statement to Mr. Jarvis or in Mr. Jarvis' presence that you knew that water defrost would not work, that you tried it and abandoned it and it wouldn't work?

A. I have never made that statement. [1213]

Q. To anyone? A. To anyone.

Q. Or anything of that character?

A. My statements have always been to the contrary of what you asked.

(Testimony of W. C. Hulse)

Q. Your statements have always been that water defrost would work?

A. And that I did make it work.

Q. And that it worked satisfactorily?

A. That is right.

Q. And never made any statement to the contrary?

A. That is right.

Q. Now, Mr. Hulse, you have testified that this system of hot gas method was installed in the Yamhill installation first, is that correct?

A. Will you repeat that?

The Court: You put in the hot gas first at Yamhill?

The Witness: That is right.

By Mr. Lewis Lyon:

Q. Did you ever see it while it was so installed?

A. I can't say that I did.

Q. Do you know how long it was installed?

A. Not very long.

Q. Do you know how long?

A. It couldn't have possibly been over two or three [1214] days.

Q. But you never saw it?

A. That is correct.

Q. You don't know when it was first installed?

A. I do not quite understand what you mean, when it was first installed.

Q. You don't know when the installation was first set up with hot gas on it, do you?

A. I was there when we started to erect the job, yes.

Q. But you don't know when it was first installed with hot gas, when the system was started in use with a hot gas defrosting system?

A. You were asking for a date?

The Court: Just a minute. Read the question.

(Testimony of W. C. Hulse)

(The question referred to was read by the reporter, as follows:

“Q. But you don’t know when it was first installed with hot gas, when the system was started in use with a hot gas defrosting system?”)

The Court: Do you understand the question?

The Witness: Not exactly.

The Court: What do you not understand about the question?

The Witness: You see, there is a period of starting. You start erection, you go through a period of erection, cer-
[1215] tain tests, then you go into your final test run, then you go into your pull down period. Just which of these periods are you talking about? [1216]

The Court: Do you have a period when you install something?

The Witness: That’s right.

The Court: You know when it is installed?

The Witness: Yes, we know when it is installed.

The Court: Read the question again.

(The question referred to was read as follows:

“Q. You don’t know when the installation was first set up with hot gas on it, do you?”)

The Court: Do you understand that?

The Witness: Well, may I explain it this way?

The Court: Is there any word in it that you don’t understand?

The Witness: What I mean is, I don’t quite. As to the equipment, I was there when we delivered the machinery; when we started to work, when we put the machines

(Testimony of W. C. Hulse)

on the foundation, there are periods in between in the construction when I am not there. I didn't exactly see them operate with the hot gas, and I was not there when they had it installed and when the room was down to temperature; I wasn't there when the room was brought down to temperature.

The Court: In other words, you were not there when they hooked it up?

The Witness: That's correct.

The Court: Does that answer your question? [1217]

Do you know when they hooked it up?

The Witness: Oh, yes.

The Court: When?

The Witness: Well, the exact date I couldn't tell you, just exactly what day. It was right after the first of the month because, as I remember, we were three days getting the water defrosting system installed, and it took us about a day to install the condenser receiver, so it was five days approximately before we started the final pull-down on the water defrosting.

Q. By Mr. Lewis Lyon: You know, of your knowledge, as you have testified, that the room was never brought down to temperature using the hot gas method of defrosting?

A. That is correct.

Q. How do you know that?

A. I didn't see it brought down to temperature, and, of course, I am relying there on the statement of our service man, Tony Broms.

Q. You know, as a matter of fact, do you not, that until the coils of the system had frosted up because the system had been put in use, that there would be no reason for trying to use a defrosting system, don't you?

(Testimony of W. C. Hulse)

The Court: Let me hear that.

The Witness: I will have to, too.

(The question was read.) [1218]

The Witness: That question requires not a direct one-word answer.

Q. By Mr. Lewis Lyon: Can't you answer the question "Yes" or "No," and then give your explanation?

A. You will have to read it once more, if I do.

(The question referred to was reread.)

A. That's true, because the coils will not start to frost at a high temperature, but it does not indicate that they were anywhere near down to normal operating of the guaranteed temperatures.

Q. You know then, as a matter of your own knowledge, that the system was put in use as it was contracted for. You don't know, of your own knowledge, as to what the conditions of operations were; isn't that a fact?

Mr. White: As of what time?

Mr. Lewis Lyon: As of the time it was installed.

The Witness: Your question brings up—

The Court: No, just answer the question.

The Witness: I don't understand it, then.

The Court: All right. Read the question.

(The question was read.)

Mr. Neave: It seems to me to be like two questions, your Honor.

The Court: Are you objecting?

Mr. Neave: I am. [1219]

The Court: Upon what ground?

Mr. Neave: That the question is a double-barreled question, and he can't answer it one way or the other unless it is broken up.

(Testimony of W. C. Hulse)

The Court: The objection is sustained.

Q. By Mr. Lewis Lyon: Do you know, Mr. Hulse, of your own knowledge, that the system was installed as called for by the contract, using the hot gas system of defrosting?

A. It was originally installed that way, yes, sir.

Q. And you don't know, of your own knowledge, how long it remained so installed, do you?

A. Not to an exact date.

Q. You don't know, of your own knowledge, what the conditions were of operation, as it was installed, do you, originally?

A. No.

Q. Now, isn't it a fact that instead of leaving Portland in March or in the spring of 1937, that you left the employ of the Electrical Products Company in Portland, in February, 1937?

Mr. White: May I have that question, please?

(The question was read.)

The Witness: I didn't leave the employ of the Electrical Products Company at that time. I was transferred.

Q. By Mr. Lewis Lyon: In Portland, I said. [1220]

A. Oh, excuse me. That's correct.

The Court: You were transferred from where to where?

The Witness: From Portland to Omaha.

The Court: To Omaha.

Q. By Mr. Lewis Lyon: How long after you got to Omaha did you remain in the employ of the Electrical Products Corporation?

A. Not very long.

Q. It was a matter of about two weeks, wasn't it?

A. Correct.

(Testimony of W. C. Hulse)

Q. Mr. Hulse, after this so-called insulated wall was put around the cold diffuser in the chill room of the Yamhill plant, was there any way that you could get inside of the space that was occupied by the diffuser system?

A. Yes, sir.

Q. How? A. Through removable openings.

Q. They were big enough to get inside?

A. I don't recall that they were that big.

Q. How big were they?

A. Well, there was one big enough so that we could look through the inspection plant. There was another one big enough to get into, or partly into, to service the expansion valve and the equipment on that end of the unit.

Q. Now, while you were endeavoring to defrost this unit [1221] in carrying on this method of inspection, then, and looking to see how the thing operated, you had these doors open in the chill room, did you?

A. Normally, no, it wasn't necessary.

Q. You have testified that in order to find out how this thing was working you kept a visual observation, of watching the frost fall off. To do that you had to have the doors open, didn't you?

A. That's correct, when we first started; until we learned the time of defrosting, how long it took, why, we had to look.

Q. Do you know whether Electrical Products Company has ever made any other installation of a system of water defrost? A. I am not sure of that.

Q. Electrical Products Corporation was the agent for the Carrier Corporation at that time, was it not?

A. That's correct.

(Testimony of W. C. Hulse)

Q. Do you know whether they ever made any report of the operation of this system to the Carrier Corporation?

A. I wouldn't know for sure if a regular formal report was, although I do know that members of the Carrier field organization knew about it.

Q. You are acquainted with Mr. Niel Dahl, are you not?

A. That's right.

Q. He was your immediate superior, was he not, while you [1222] were connected with the Electrical Products Corporation?

A. Yes, sir.

Q. If any report was made, formal report was made, to the Carrier Corporation, he would have made it, wouldn't he?

A. That would be dependent upon whether it was made on our own volition, or whether it was requested by the Carrier Corporation.

Q. You know of no request from the Carrier Corporation, do you?

A. No.

Q. Isn't it a fact, Mr. Hulse, that the Electrical Products Corporation was responsible for this system, and in the end, to meet their responsibility, took out the water defrost and put in the hot air system?

Mr. White: I submit that that question is indefinite—

The Court: Overruled.

Mr. White: —that they were responsible for it.

The Witness: Well, I don't quite understand your point in the question.

The Court: By the way, is this contract in evidence?

Mr. Neave: It hasn't been offered, no, your Honor.

The Court: It hasn't been offered?

Mr. Neave: No.

(Testimony of W. C. Hulse)

The Court: Were you intending to offer it?

Mr. Neave: I was not intending to offer it, because we [1223] cannot prove where it has been before the time Mr. Hulse got it. He got it from the files of the company, and we have no proof of officers of the company.

The Court: Have you ascertained whether or not he is able to identify it as being a true copy?

Mr. Neave: I can and will. We will ask him to do that, and then I shall offer it.

Mr. Lewis Lyon: I have no objection.

The Court: To offering it?

Mr. Lewis Lyon: It isn't offered yet.

The Court: Do you offer it?

Mr. Neave: We will offer it now if Mr. Hulse will identify it, identify the signature.

The Witness: What is the number?

The Court: It is a typewritten signature.

Mr. Neave: No, I believe not, your Honor, not the one I am referring to.

The Court: Y-1?

Mr. Neave: Y-3 is the one I am referring to.

The Court: This is Y-1, a letter to Trullinger.

The Witness: That is not a contract. That is a proposal, a sales proposal.

The Court: A proposal, all right. Are you able to identify that proposal?

The Witness: Although it is not signed with my signature, [1224] these writings up here (indicating) on the original are my own.

The Court: Well, do you recognize that?

The Witness. Yes.

(Testimony of W. C. Hulse)

The Court: As the text of a letter which you dictated on or about that date to Fred L. Trullinger, and signed?

The Witness: Yes, sir.

The Court: And sent?

The Witness: Yes, sir.

The Court: Do you now offer it?

Mr. Neave: Yes, I offer Exhibit Y-1.

The Court: All right. Do you have any objection?

Mr. Lewis Lyon: No objection.

The Court: Y-1 is admitted. [1225]

[Note: Plaintiff's Exhibit No. Y-1 will be found in the Book of Exhibits at page 1215.]

The Court: Y-2 is admitted, is it?

Mr. Neave: Y-2 has not been offered.

Is Y-2 in your handwriting, Mr. Hulse?

The Witness: Yes.

Mr. Neave: Then I will offer that too, your Honor.

The Court: Is there any objection to Y-2?

Mr. Lewis Lyon: No objection.

The Court: Admitted.

(The document referred to was received in evidence and marked Plaintiff's Exhibit Y-2.)

[Note: Plaintiff's Exhibit No. Y-2 will be found in the Book of Exhibits at page 1219.]

The Court: Y-3 is the contract?

Mr. Neave: Did you sign that, Mr. Hulse?

The Witness: No. This Y-2—

The Court: No, Y-3.

The Witness: I signed that.

(Testimony of W. C. Hulse)

Mr. Neave: I offer that, your Honor.

The Court: Any objection?

Mr. Lewis Lyon: No objection.

(The document referred to was received in evidence and marked Plaintiff's Exhibit Y-3.)

[Note: Plaintiff's Exhibit No. Y-3 will be found in the Book of Exhibits at page 1220.]

The Court: Y-1, 2 and 3 are now admitted.

Mr. Neave: I would like to get this straight, your Honor.

Mr. Hulse, is Y-2 in your handwriting?

The Witness: No. [1226]

Mr. Neave: That is not in your handwriting?

The Witness: No.

Mr. Neave: Very well.

The Court: Well, it is admitted anyhow. I do not know what it is, apparently some inter-office communication.

The Witness: It is the copy that is necessary before any ordering of materials can be done by the order department.

The Court: Let me ask the witness a question. Y-3 in typewriting says "equipment as per attached proposal."

The Witness: Yes, sir.

The Court: Did that refer to Y-1?

The Witness: Yes, sir.

The Court: So that Y-1 was a part of Y-3?

The Witness: Yes, sir.

The Court: Excuse the interruption, counsel.

(Testimony of W. C. Hulse)

Mr. Lewis Lyon: I believe there was a question before the witness that remains unanswered.

The Court: The general question was as to whether or not you didn't know it to be a fact that the Electrical Products, Consolidated, pursuant to its responsibility, ultimately took out the water defrost system and installed the hot air defrosting system.

The Witness: I don't know that to be true.

By Mr. Lewis Lyon:

Q. You were not connected with the Electrical Products [1227] Corporation in any way after approximately the 1st of March 1937, is that correct?

A. That is right.

The Court: When you went there in October 1937 had the refrigerating unit which was on the floor been moved into the locker room yet?

The Witness: No, it was in the same position as the last time I had seen it.

The Court: Did you ever see it in the locker room?

The Witness: In 1945; yes.

The Court: In 1945?

The Witness: But not up until that time.

The Court: Very well.

By Mr. Lewis Lyon:

Q. Isn't it a fact, Mr. Hulse, that the occasion of your repeated visits to this plant daily as you have stated was because of the complaints of the operators and you had to try to make the system work?

A. No. We made several visits out there with other customers to show them how this job was done.

(Testimony of W. C. Hulse)

Q. But other than those you didn't take the customers out there daily, and the other times you went out daily, as you testified, was because of the complaints of the operators?

A. I didn't testify that I had been there every day. I said every few days. [1228]

Q. All right. Every few days then.

A. No, because that wouldn't be directly my part of the job. It is true that I have helped them. We find in a lot of those cases that a butcher is not a refrigerator man, he is a little hard to show how to operate any piece of mechanism, and they take a little teaching.

Q. But you say it is not a fact that the service charges that Electrical Products had to bear in connection with this job made it necessary for them to discontinue the operation of this system?

A. Of course I can't testify for the time after I left, but that would not be true up to the time I left Electrical Products.

Q. You know that there were several calls continuously from the Yanhill job while you were there still, do you not?

A. I wouldn't say continuously.

Q. Well, they were closely spaced, even if intermittently, isn't that correct?

A. We serviced the rest of the equipment in that place too.

Q. But you serviced particularly this cold diffuser unit and this so-called system of defrosting, didn't you?

A. Not excessively?

The Court: Did you get calls to come out and service it, complaints from the customers? Did you or didn't you? [1229]

(Testimony of W. C. Hulse)

The Witness: Not more than normal, about four or five calls.

The Court: Whether normal or not normal, did you get them?

The Witness: Four or five calls; yes.

The Court: All right.

Did you ever put in—I think you answered that—did you ever put any in after the Recold came on the market?

The Witness: I had no occasion because I was over in the air conditioning business then which is an entirely different setup, air conditioning and fixtures.

The Court: Air conditioning?

The Witness: That is right.

By Mr. Lewis Lyon:

Q. It is a fact, isn't it, Mr. Hulse, that to your knowledge no other installation like the Yamhill installation was ever made; isn't that true?

A. To my knowelge, yes.

The Court: Did you ever have or see a thermometer in the chamber, insulated chamber, where the cooling unit was at any time? Did you ever have or see a thermometer there.

A. No.

The Court: Did you ever take any means for measuring the temperature in that room, the insulated chamber, after it was insulated during the time of defrosting it by the water [1230] system?

The Witness: The only means of ascertaining the temperature was continually ice where we spilled it on the floor so it was below freezing.

The Court: The ice froze in the chamber?

The Witness: In the chamber on the floor; yes.

(Testimony of W. C. Hulse)

By Mr. Lewis Lyon:

Q. During defrosting?

A. No. It would freeze there any time that there was water. Yes, it would be during defrosting because that was the only time there was any water to freeze.

The Court: Then there was always ice on the floor?

The Witness: Underneath that machine.

The Court: All the time?

The Witness: That is right.

The Court: Well, now, let us go back to the question. Did you ever use any means to determine the temperature of the air in that chamber during the time of defrosting by water?

The Witness: I don't understand what you mean by "any means."

The Court: Maybe some of these inventors or experts may pull something out of their sleeve to ascertain temperature besides a thermometer.

The Witness: We have had our hands in there. There was [1231] always ice. That is some measure, if you want to be technical. The fact that the top of it was always open to the locker room temperature made it unnecessary for us to ever actually inquire because it was really a part of the locker room inasmuch as the two rooms were not closed off by a door.

The Court: You mean inasmuch as there were openings between the two rooms?

The Witness: That is right.

The Court: But you shut the fan off?

The Witness: That is correct.

Mr. Lewis Lyon: You shut the one opening—

(Testimony of W. C. Hulse)

The Court: And you shut the opening?

The Witness: We shut the bottom opening?

By Mr. Lewis Lyon:

Q. The intake fan?

A. That is right, but the cold air always goes down, you know.

The Court: Did you have the fan to suck the air in there or just one fan to blow it out?

The Witness: There was a fan on a single shaft. There are two fans on one shaft, that brought the air in through the bottom and normally would discharge out through the top.

The Court: That is, it sucked the air up around the fins and blew it out, is that right?

The Witness: That is correct. [1232]

The Court: From the cold room?

The Witness: That is right.

The Court: And you shut that bottom one and turned the fan off?

The Witness: That is right.

The Court: Did you ever turn that unit off to see how long it would take to defrost without any artificial means of defrosting either the hot gas, hot air, hot water or cold water or anything else?

The Witness: No, because we know from our own experience just everyday experience that that would take hours and hours and hours. We used to do the defrosting—I think I see the point you have in mind—we did the defrosting—

The Court: Don't think about the points I have in mind. You just answer the questions. We would get

(Testimony of W. C. Hulse)

along a lot further with your testimony if you wouldn't try to out-figure counsel and the court.

The Witness: All right.

The Court: You never did? The answer is, you never did?

The Witness: I never did.

By Mr. Lewis Lyon:

Q. Isn't it a fact, Mr. Hulse, that with the water sprinkling through the air with the bottom air intake closed that the warm water would cause the temperature of the air [1233] within that insulated space to rise?

A. Very slightly.

Q. It would rise? A. That is right.

Q. And hot air goes up? A. That is right.

Q. So that as the air raised in temperature it would go out the upper outlet, isn't that true?

A. That is pretty true; yes, sir.

The Court: Did you ever construct any other refrigeration unit where the requirement was for a below freezing point where you put the unit in an insulated room by itself?

The Witness: Yes.

The Court: Where? Several?

The Witness: Several; yes.

The Court: Is that the usual, or was it at one time the usual, course of business?

The Witness: Yes.

The Court: And for what reason?

The Witness: There are certain applications of the blower unit where all you want is a discharge of air. Take in car pre-cooling, the air there goes to a car, not to a room. It is sucked through coils in a separate insulated chamber by themselves.

(Testimony of W. C. Hulse)

The same thing could be said of the— [1234]

The Court: I am thinking of a stationary object.

The Witness: Yes, I mean stationary.

The Court: A car pre-cooling system wouldn't be a stationary object.

The Witness: The plant is stationary. You slide the cars up along the track, you hook the duct into the top of the car, blow the air into the car, cool it off, and then load your fruit or maybe it was partly loaded with fruit before.

We do the same thing, we insulate bunker coils, as we call them, and we hang them to the ceiling or put them in the floor, and put an insulated room around them and blow through them.

That is where we realized the trick of this water defrosting because we used to defrost those with a fire hose.

By Mr. Lewis Lyon:

Q. As an actual fact, Mr. Hulse, on the operation of this Yamhill job even when you had this installation installed, as you have testified, it was necessary to get in there many times with a fire water hose and try to supplement the water, isn't that so? A. That is not true.

Q. You never did that? A. I never did that.

Q. You never saw anybody else do that? [1235]

A. No, sir.

Q. You never knew of it being done? A. No.

Q. You never knew of the job freezing up at any time either or of anyone having to get in there with a torch to melt the ice out?

A. Well, they couldn't get into it.

Q. They couldn't get into it?

A. There is a hand hole about that big. (Indicating.)

(Testimony of W. C. Hulse)

Q. Now this hand hole is this big. (Indicating.) Before you couldn't tell me how big it was.

A. Before you were asking about the hole in the insulated wall. I am talking now about the hole in the case of the Carrier cold diffuser.

Q. And that hole in the case is the only thing you had to see through as to what was going on on the inside of the unit? A. That is correct.

Q. And that hole was about how big?

A. About that big. That is quite adequate. (Indicating).

Q. How far was that hole from the insulated wall?

The Court: Do you think the Circuit Court of Appeals would know how big he said that hole was?

Mr. Lewis Lyon: I think you are right, your Honor. [1236]

Q. That hole was a hole, as you have figured with your fingers, about 5 inches in diameter, isn't that about correct?

A. About that; yes.

Q. How far was that hole in the case from the insulated wall? A. Right adjacent.

Q. Right adjacent? Right up against it?

A. About an inch or two away probably.

Q. How thick was the insulated wall?

A. I would say two or three inches.

Q. Two or three inches thick? A. Yes.

Q. And in what position was the insulated wall with respect to the ends of this diffuser unit?

A. They covered one end, went down the back side, the side that had the inspection plate on it.

(Testimony of W. C. Hulse)

Q. Where was this hole with respect to the ends of the unit? A. It is right in the middle.

Q. How long was the unit?

A. I believe three feet.

Q. It is only three feet long? A. That is correct.

Q. It is not a 5-foot unit?

A. No, overall, but the coil area is about three feet. [1237]

Q. There is only three feet of coil area inside of that unit? A. Yes.

The Court: The overall length was five feet?

The Witness: Something like that.

The Court: Where are these doors that you could get in there by that you testified about a while ago?

The Witness: (Pointing at picture)

The Court: I know that, but you said there were doors and openings in the insulated wall where a person could climb in.

The Witness: Can we refer to a drawing to make this clear?

The Court: No, not now. Is that drawing in evidence?

Mr. Neave: It certainly is.

The Court: Is that the one you want to refer to?

The Witness: Yes.

The Court: Then you can refer to it.

Mr. Neave: It is Y-28.

The Court: I see where it is. You have marked it 1-A, access door?

The Witness: That is right.

The Court: The one on the end?

(Testimony of W. C. Hulse)

The Witness: Yes.

The Court: All right. Now how far was the wall of this [1238] insulated unit to the end from the end of the metal unit?

The Witness: Well, there is a motor drive on there, that is six, eight inches.

The Court: Well, maybe counsel can straighten it out on redirect. I cannot understand how a man could get in there.

The Witness: I understood the question to be about this door that is in the long way of the cold diffuser. Have we changed the question?

The Court: No, no. The question hasn't been changed. Some time ago you testified that there were doors by which a person could get in there.

Mr. Neave: That wasn't my recollection, that he said a person could get in there. Mr. Lyon said that.

The Witness: I said you could reach in there. I didn't say you could get in there.

The Court: The record will show what it shows.

By Mr. Lewis Lyon:

Q. Referring to Exhibits Y-17 and Y-18, is it your testimony now, Mr. Hulse, that the overall length of that casing is 5 feet, is that correct?

A. I believe I said approximately 5 feet. I don't know the exact dimension of it.

Q. What is your best recollection?

A. I still believe that is about right.

(Testimony of W. C. Hulse)

Q. All right. Now the coils that were inside of [1239] there, the coils through which the refrigeration passed are only 3 feet in length, that is your testimony, isn't it?

A. That is correct.

Q. Now how were those coils supported inside of that casing?

A. The coils are built as a single unit and bolted so that they can be removed through the top half of that section.

Q. Bolted to what? A. To the casing.

Q. To what part of the casing?

A. To the supporting section of the coil housing.

Q. That is the angle irons which make up the edges of the housing, isn't it?

A. I don't believe in that model that they used angle irons. I think that is just a roll case of heavy metal.

Q. And they were supported directly from the end sections, were they not? A. That is correct.

Q. It is your testimony now then that they were supported by hangers that were one foot long from each end section, is that correct?

A. You are confusing the point. I didn't say that.

Q. You say the casing is 5 feet long and the coils are 3 feet long?

A. I meant, and I understood the question to be, that [1240] the length of the entire unit overall, the entire unit, is 5 feet, and that would include the liquid, the suction header on one end, the fan motor and guard on the other end.

Q. I asked you how long the casing was, and you said 5 feet, didn't you? A. I didn't quite understand you.

The Court: How long is the casing?

The Witness: Three feet.

(Testimony of W. C. Hulse)

By Mr. Lewis Lyon:

Q. The casing is only 3 feet? A. That is right.

Q. And the coils that went inside of it are 3 feet?

A. As close as can be.

Q. How deep are the coil sections? There are three sections of this unit, a top, center and bottom section. What is the height of each one of those sections, showing the witness Y-17?

A. I wouldn't know exactly. I would say 15, 18, 20 inches.

Q. Which is your best recollection?

A. About 18 inches.

Mr. Lewis Lyon: That is all.

The Court: Redirect? [1241] .

Redirect Examination

By Mr. White:

Q. Mr. Hulse, when did you first see the floor diffuser unit defrosted after the locker room was first put in use?

Mr. Lewis Lyon: That is objected to as not redirect examination, your Honor.

The Court: Overruled.

The Witness: Will you repeat the question?

(The question referred to was read by the reporter, as follows:

“Q. Mr. Hulse, when did you first see the floor diffuser unit defrosted after the locker room was first put in use?”)

The Witness: I believe it was on November 10th.

(Testimony of W. C. Hulse)

By Mr. White:

Q. What kind of method of defrosting was used?

A. Water.

Q. Now when this floor diffuser unit was in operation, what was the temperature of the coils?

Mr. Lewis Lyon: That is objected to as not redirect examination, your Honor.

The Court: Let me hear the question again.

(The question referred to was read by the reporter, as follows:

“Q. Now when this floor diffuser unit was in operation, what was the temperature of the coils?”) [1242]

Mr. Lewis Lyon: There has been no testimony either on direct or cross about the temperature of the coils.

The Court: I think that is correct. I do not believe there was. Objection sustained.

Mr. White: That is all.

Mr. Lewis Lyon: That is all.

The Court: I want to ask one question. When you defrosted by water you turned the machine off so that the cooling material wasn't going through?

The Witness: Not always. There are two things—

The Court: You shut off the machine?

The Witness: We turned off the expansion valve so that no more liquid could go in. We didn't necessarily turn the machine in itself off. The machine would eventually go off by itself whenever it came down to the low pressure cut-off.

(Testimony of W. C. Hulse)

The Court: You mean it was an automatic machine anyhow?

The Witness: That is right. The ice machine in itself was set so that when the pressure within the coils gets down so low that it starts pulling down into a low vacuum, the machine will stop itself, so we didn't actually have to go and press a button to do that.

The Court: All right. That is all.

(Witness excused.) [1243]

The Court: This witness may be excused.

Mr. Neave: Mr. Dalin.

AXEL JULIUS DALIN,

called as a witness by and on behalf of the plaintiff, having been first duly sworn, was examined and testified as follows:

Direct Examination

The Clerk: State your name, please.

The Witness: My full name is Axel Julius Dalin.

The Clerk: And your address?

The Witness: 2795 West Eighth Street, Los Angeles.

The Clerk: Take the stand.

The Court: If you are starting a new witness, we will have a recess for a few minutes.

(A short recess was taken.)

The Court: Did the other witness leave?

Mr. Neave: Yes, your Honor. Is there something else you wanted to ask him?

The Court: What man that has practiced law didn't think the next morning about just one more question?

(Testimony of Axel Julius Dalin)

Mr. Neave: That is true.

The Court: No.

Mr. Neave: I am afraid he has gone back to San Francisco. He was going to take a plane this afternoon. I can call him up if it is something you wanted, and perhaps counsel will stipulate. [1244]

The Court: I don't know, but the question was in my mind as to how come originally they didn't put the refrigerating unit in the locker room when they built it. That is where it is now.

Mr. Neave: I can answer that, your Honor, but it is not in the record.

The Court: I recall that he testified, or somebody did, it is in the record, that they used a warehouse that had been a dry storage warehouse for a locker room, but there isn't anything in the record as to why it was thus designed.

Mr. Neave: I don't believe so.

The Court: That is, to have the refrigerating unit out of the locker room.

Mr. Neave: I don't believe there is anything in the record about that.

The Court: I don't know whether he would know or not.

Mr. Lewis Lyon: I don't either.

Mr. Neave: Mr. O'Hearn says he thinks there is something in Postlewaite's testimony, and we will look it up and advise your Honor.

The Court: Postlewaite?

Mr. Neave: He was the man who was with the company that sold the job. He and Hulse belonged to the same organization. His direct testimony was not fully read this morning but only a portion of it. [1245]

(Testimony of Axel Julius Dalin)

The Court: Yes, I remember that. All right.

Mr. Neave: Apparently, on page 212 of the deposition he said that the unit was placed outside the locker room in order that lockers would not be misaligned:

"Q158." —this is cross examination—At the time that you stated you located this equipment at this Yamhill plant what was your reason for locating the diffuser outside of the cold room or outside of the locker room?

"A. Why we located it outside of the locker room? The row of lockers that would fit would be misaligned if the cold diffuser were put in the locker room, and at the request of Mr. Trullinger, that he would rather have that for the lockers, why, we looked for a space to put it. For a while we thought we would put it outside the room, the cold storage room, entirely; but we finally decided to sacrifice part of the chill room and put the cold diffuser in there as being more centrally located with respect to the locker room."

Apparently, they wanted more locker space.

Mr. Lewis Lyon: That hardly answers the question. If you look at the cross examination on the question of misalignment, when they did put it back in there, it did not misalign the lockers, and I could not find a vacant space [1246] where there were any lockers at any time.

The Court: Well, you can argue about that.

The question that was in my mind, for the benefit of counsel, was whether or not it had any relationship to keeping the temperature up in the locker room during the

(Testimony of Axel Julius Dalin)

necessary time that it would have to be defrosted, which appears to be what this argument is about.

Mr. Neave: I think that can be answered from the record that we have, your Honor, from the testimony of the deponents, and of Mr. Hulse.

The Court: All right. We will get to that, I suppose.

Mr. Neave: Shall I proceed, your Honor.

The Court: Yes.

Q. By Mr. Neave: Mr. Dalin, I am quite a distance from you, and I will try to keep my voice up, and you please try to do the same, or else I won't hear you.

A. All right.

The Court: Do you have any difficulty in hearing?

The Witness: No.

Q. By Mr. Neave: What is your position, Mr. Dalin?

A. My position is district chief engineer.

Q. For what company?

A. For the York Corporation in Los Angeles.

Q. How long have you held that position?

A. Since July, 1933. [1247]

Q. Where were you born?

A. I was born in Gutenberg, in Sweden.

Q. Where did you get your education?

A. In Sweden.

Q. You had an engineering education in Sweden?

A. Yes.

Q. Now, do you know a Mr. Walling?

A. Yes.

Q. He testified in this case that from 1938 to 1941, he was the manager of the commercial department of the

(Testimony of Axel Julius Dalin)

York Corporation at Los Angeles. What is the commercial department?

A. Well, the commercial department in refrigeration is classified as smaller compressor units, up to and including 10 horse-power.

Q. What department has the units above 10 horse-power?

A. That is classified as industrial refrigeration.

Q. Was Mr. Walling during the period mentioned ever the manager of the industrial department?

A. No.

Q. Now, you say this is a district office of the York Corporation. What states does the district office cover?

A. It covers the State of California, Nevada, Arizona, and also Sonora and Sinaloa Counties, and the lower California in Old Mexico. [1248]

Q. Was Mr. Walling the manager of the commercial department in all of these states or districts?

A. No, only the city and county of Los Angeles, and also Ventura and Orange Counties.

Q. Did you hear Mr. Tuttle testify in this case?

A. Yes.

Q. What was the date when Mr. Tuttle's employment was terminated with the York Corporation?

A. Our records show that he was terminated September 15, 1939.

Q. Mr. Tuttle has testified that in a conversation with you around 1938 or '39 you stated to him that water defrosting was an exploded idea and that York had thrown it out years ago. Did you ever make such a statement?

A. I cannot recall such a statement.

(Testimony of Axel Julius Dalin)

Q. Do you believe that you would recall it if you had made it? A. No.

Q. You don't think you would remember making the statement if you had made it?

A. No, I don't see why I should because, to my knowledge, York never tried out water defrosting at that time.

Q. You mean you don't see why you should have made the statement? A. That's right. [1249]

Q. Did Mr. Tuttle ever tell you or did you ever tell Mr. Tuttle that, in your opinion, water defrosting wouldn't work? A. Not to my knowledge.

The Court: You mean, not to your recollection?

The Witness: That is correct, your Honor.

Mr. Neave: I would like to have a paper addressed to Refrigeration Engineering, Inc., and dated 8-25-39 marked as Plaintiff's Exhibit 103, for identification.

(The document referred to was marked Plaintiff's Exhibit No. 103, for identification.)

Q. By Mr. Neave: I show you Plaintiff's Exhibit No. 103, for identification, Mr. Dalin, and ask you whether you can identify it. A. Yes, I can.

Q. What is it?

The Court: Is this the original?

Mr. Neave: That is a copy.

The Court: Do you have the original?

The Witness: No, I have not.

The Court: Oh, it is a photostat?

Mr. Neave: It is a photostatic copy.

The Court: Very well.

The Witness: It is a copy of York's purchase order No. 27646 to Refrigeration Engineering, Inc. in Los An-

(Testimony of Axel Julius Dalin)

geles for [1250] one Recold No. 40LT unit, 110 volts, 60 cycles.

Q. By Mr. Neave: Is that an order placed by the York Corporation? A. That is correct.

Q. Was it placed with your approval?

A. Yes, it was.

Q. And was it placed on 8-25-39?

A. That is the date of the order.

Q. Prior to that date had you ever seen a Recold unit with water defrosting in operation? A. No.

Mr. Neave: That is all.

The Court: Cross-examine.

Cross Examination

By Mr. Lewis Lyon:

Q. Prior to the date of this order, Mr. Dalin, prior to August 25, 1939, had you ever discussed with Mr. Tuttle, Mr. Walling, or any one else in the York organization in Los Angeles the Recold water defrost unit?

A. I recall I had discussion with Mr. Walling.

Q. With any one else?

A. No, not as I recall it at this time, no.

Q. How far before August 25, 1939, did this conversation with Mr. Walling take place?

A. I cannot exactly say, but only probably a few weeks before the placing of this order. [1251]

Q. And at that time you discussed with Mr. Walling, did you not, the Recold water defrosting proposition?

A. Not as I recall.

(Testimony of Axel Julius Dalin)

Q. You didn't discuss the Recold system at all with Mr. Walling prior to August 25 of 1939?

A. Yes, I told you I recall shortly before that I discussed that we should try out the Recold unit in a low temperature installation.

Q. Who is Mr. E. E. Collins?

A. E. E. Collins worked directly under me at that time. He is an engineer, a graduate engineer.

Q. Where is Mr. Collins at the present time?

A. He is working for the Safeway Stores, Inc., in San Francisco.

Q. Does this order which you have here produced, dated August 25, 1939, then show your first experience with the system of water defrosting?

A. As I recall it, yes.

Mr. Lewis Lyon: That is all.

Redirect Examination

By Mr. Neave:

Q. Did you get any guarantee from the Recold Company when they sold this unit to you? A. No.

Mr. Lewis Lyon: That is not redirect. [1252]

Mr. Neave: I recalled the witness for the purpose of that question, your Honor.

The Court: All right.

Mr. Neave: That is all.

The Court: Is that all?

Mr. Lewis Lyon: Just one question.

(Testimony of Axel Julius Dalin)

Recross Examination

By Mr. Lewis Lyon:

Q. Isn't it a fact, Mr. Dalin, that prior to this date of August 25, 1939, that you visited the installation of the Johnston Pie Company in Los Angeles?

A. No.

Q. You had never been there?

A. No, I have not been there.

The Court: You never have?

The Witness: Where is that?

By Mr. Lewis Lyon:

Q. Johnston Pie Company in Los Angeles.

A. Johnston?

Q. Yes. A. I don't recall the name.

Q. You have never been there at any time that you know of? A. I don't recall it.

Q. A commercial pie manufacturer? [1253]

A. No. The only pie manufacturing—

Q. Between San Pedro and Central Avenue on 41st Street?

A. The Bowie is the only pie installation I have seen in Los Angeles; B-o-w-i-e.

Q. You never saw nor, as far as you know, none of your engineers, Mr. Collins or anyone else, has ever visited that installation before you placed this order?

A. I don't recall.

Q. Didn't Mr. Walling report to you that he had been to that Johnston Pie job in this conversation with you?

A. I do not remember.

(Testimony of Axel Julius Dalin)

Q. Didn't Mr. Tuttle report to you that fact?

A. At that time Mr. Tuttle was an order clerk in our organization and he had nothing to do with any installations of any kind.

The Court: Did he report to you that he did?

The Witness: No, I cannot recall, your Honor.

By Mr. Lewis Lyon:

Q. You can't recall his reporting the fact that he had been out and saw the Johnston Pie Company job in operation?

A. I cannot remember.

Q. Is it your testimony that before August 25, 1939 that as far as you know no engineer or party associated with you in the York office at Los Angeles had ever seen a Recold unit in actual operation? [1254]

A. I cannot say that he did. I had not seen any myself.

Q. You can't say that you hadn't either?

A. I had not seen one.

Q. Were you instrumental in instituting this order that Mr. Collins placed, or was that on his own volition and one that he presented to you and asked, "Is that all right"?

A. I approved of it.

Q. But you didn't institute it?

A. No.

Q. You didn't know anything about it until he presented to you and said, "Is this all right," is that correct?

A. Yes. I had read about it in the Recold catalogs.

Q. I say, about this particular order, the fact that York was ordering this particular device, you didn't know anything about it until Mr. Collins said, "Is this okay Mr. Dalin," isn't that correct?

A. That is not correct. He asked me if we should try out the water defrosting. I said yes.

(Testimony of Axel Julius Dalin)

Q. And that was before or after the order was placed by phone, do you know? A. That was before.

Mr. Lewis Lyon: That is all.

Mr. Neave: That is all.

(Witness excused.)

Mr. Neave: Mr. Chamberlain. [1255]

JOSEPH REDDINGTON CHAMBERLAIN

called as a witness by and in behalf of the plaintiff, having been first duly sworn, was examined and testified as follows:

The Clerk: Your name?

The Witness: Joseph Reddington Chamberlain.

The Clerk: Your address?

The Witness: R. D. No. 2, York, Pennsylvania.

Direct Examination

By Mr. Neave:

Q. By whom are you employed, Mr. Chamberlain?

A. York Corporation.

Q. What is your present position?

A. I am assistant chief engineer.

Q. How long have you held that position?

A. Since May 1945.

Q. How long have you been with the company?

A. Since June 25, 1928.

Q. What work did you do before you became assistant chief engineer?

A. I have been in the engineering department since I completed the student course in 1930.

(Testimony of Joseph Reddington Chamberlain)

From 1930 to 1932 I was classed as a junior engineer; from '32 to '35 as an associate engineer; from '35 to '38 as senior engineer; from '38 to '43 my title was assistant chief mechanical engineer; from '43 to '45, until my present position, I [1256] was chief mechanical engineer.

These duties involved from the outset a great deal of work in the field and in the office. The job of the mechanical engineering department, with whom I have been up until the present job and at which time I was at one time head of this department, they controlled the application of engineering practices of the corporation, involving field work that had to do with compressors, air conditioners and all types of refrigeration.

Q. Have you an engineering degree?

A. I have, sir.

Q. What is it?

A. I have a degree of bachelor of arts from Duke University in 1925, and a degree of electrical engineering from Cornell University in June 1928.

Q. Are you a member of any engineering societies?

A. I am a member of the ASRE, American Society of Refrigerating Engineer.

Q. Have you ever testified in a case before?

A. No, sir.

Q. Will you describe briefly what refrigerating equipment consists of?

A. Refrigerating equipment in its barest fundamentals consists of an evaporator—

The Court: This is a mechanical refrigerator? [1257]

The Witness: Yes.

The Court: The barest fundamental would be a cake of ice.

(Testimony of Joseph Reddington Chamberlain)

The Witness: I thought you were going to suggest an absorption refrigerator which I would have hated to get into right now. But mechanical refrigeration, your Honor, consists of an evaporator, a compressor, a condenser, the interconnecting piping, including one expansion valve.

By Mr. Neave:

Q. What is the function of the evaporator? [1258]

A. The function of the evaporator is to evaporate the refrigerant which is expanded through the expansion valve and in so evaporating this refrigerant absorbs heat from the product being cooled.

Q. What does the evaporator, what portion of a home ice-box is the evaporator?

A. The evaporator in a home ice-box is the thing which gets all frosted up and where we get the ice cubes from, where they freeze the ice.

Q. What is the function of the compressor?

A. The compressor removes the evaporated gas from the evaporator and raises the pressure of this gas to put it in position, you might say, of compressing it to a high enough pressure so that it may be condensed by the condensing medium, usually water or air.

Q. That takes place in the condenser?

A. That takes place in the condenser.

Q. What are the most common types of refrigerants?

The Court: Then the operation is that you condense it—

The Witness: Condense it in the condenser.

The Court: Then evaporate it and then condense it?

(Testimony of Joseph Reddington Chamberlain)

The Witness: It makes a closed cycle. I guess, your Honor, that you might say that we refrigerating engineers are conservation engineers. We could have a refrigerant without all this closed cycle, if you just expand the gas you [1259] refrigerate, but it costs money so the idea is to re-cycle it so that it can be used over and over again.

The Court: You expand the gas in the coils?

The Witness: We expand the gas, yes.

Q. By Mr. Neave: Can you tell us what are some of the refrigerants, and then I would like to know how the refrigerants act.

A. There are many refrigerants. Of course, anything that can be vaporized is essentially a refrigerant. The ones that are usually used for the production of cold, that is, colder than ordinarily thought of as atmospheric temperature, might be ammonia, methyl chloride, sulphur-dioxide, carbon-dioxide, and any variety of Freon refrigerants. They are known as primary refrigerants.

Then there are many types of brine, usually a solution of sodium or calcium chloride known as secondary refrigerants.

Q. How is this brine refrigerated?

A. Brine is ordinarily cooled in a so-called brine cooler. A brine cooler consists usually—that is, at the present time, at least—of a so-called shell and tube evaporator. It consists of a shell with tube sheets, fixed tube sheets, through which are passed tubes, and surrounding these tubes one finds the evaporating refrigerant and through the tubes passes the brine to be cooled.

There are other types of brine coolers, such as the so-[1260] called shell and coil type, and the double pipe type.

(Testimony of Joseph Reddington Chamberlain)

Q. These refrigerants that you have referred to are the primary refrigerants which you previously mentioned?

A. That is right.

Q. Now, how do these primary refrigerants act as refrigerants and absorb heat?

A. When you reduce the pressure on this vessel, such as the brine cooler I just mentioned, by means of sucking the gas away by means of the compressor, the reduction in pressure causes the refrigerant to boil by virtue of the refrigerant having absorbed heat from the product being cooled, and in the absorption of heat it evaporates and in evaporating it releases the so-called latent heat of evaporation and thus refrigerates the fluid, whichever it may be, air or some other type of fluid.

Q. And this change of state from the liquid to the vapor is the thing that absorbs the heat, is that right?

A. The evaporation of the fluid absorbs heat from the product being cooled.

Q. And where does this take place?

A. In the evaporator.

Q. And then as I understand it the compressor takes these gases away from the evaporator?

A. Exactly.

Q. And compresses them, and then the condenser turns [1261] them again into a liquid, is that right?

A. Yes, sir.

Q. Is there something called a receiver?

A. A receiver is sometimes used to serve as, you might call it, a surge tank.

Q. Surge? A. Surge tank.

We have two types of receivers, either high-pressure or low-pressure, but usually we talk of a receiver as a

(Testimony of Joseph Reddington Chamberlain)

high-pressure, and it may be a part of a condenser. But a receiver is, you might say, a swelling in the line really, a reservoir for liquid refrigerant which has been condensed in the condenser. It is used to take the surge of the refrigerant because of the change in load on the evaporator, the amount of load varying on account of the rate of boiling.

Q. What specific refrigerating equipment does York make?

A. York makes condensers, compressors, evaporators, and all parts of a refrigerating plant.

Q. Prior to September, 1937, what kind of refrigeration installations did it sell?

A. It sold both standard off-the-shelf products, and complete tailor-made refrigerating plants of all types.

Q. In these tailor-made plants that you are talking about, what was the nature, kind, of evaporator that was used?

A. Frequently it was pipe coils in the room, on the [1262] ceiling and around the walls of the room.

Q. They were bare pipes?

A. They were bare pipes, and sometime fin pipes. Also we sold units using a casing surrounding a compact coil through which air was either sucked or blown by means of a fan.

Q. These pipe installations that you put in, what kind of refrigerant was used in those pipes?

A. Well, we used brine, we used ammonia, and we used Freon.

The Court: What is Freon?

(Testimony of Joseph Reddington Chamberlain)

The Witness: Freon is a trade name, your Honor, for a refrigerant manufactured by the Connecticut Chemical Company, a DuPont subsidiary.

I mentioned a minute ago that there were a variety of freons. The one most generally referred to as Freon is Freon 12, which is used in commercial refrigeration quite extensively at this time.

Also it was the product used in the Airosol bombs that they used during the war to act as a carrier for insecticide.

Do you want the chemical name?

The Court: No.

It is a patented product?

The Witness: It is a patented product and the patented angle of the thing involves the use of fluorine in a chlorinated hydrocarbon. [1263]

The Court: It is a liquid?

The Witness: It is a liquid or gas, depending upon the pressure, sir.

The Court: I see.

Q. By Mr. Neave: Were such pipe installations as you installed prior to September, 1937, installations below freezing temperature? A. Yes, sir, many of them.

Q. Do you still install such installations?

A. Yes, we do. In fact, we are installing one right now in Los Angeles at the Delta Seafoods Company out on Washington Boulevard.

Q. What are the advantages of this type of installation?

A. No one type of installation is proper for all applications. Frequently this type of installation is used when it is necessary to freeze a product not properly

(Testimony of Joseph Reddington Chamberlain)

wrapped and sealed. In the case of the seafoods job that I just mentioned, it is suicide to try to freeze fish by wind blowing over it. It dehydrates the fish, and when you thaw it out it is just like rotten wood.

The Court: Is it edible?

The Witness: Your Honor, it is edible. It isn't poisonous, but it wouldn't be what you would term desirable. It wouldn't have the bloom that your wife wants when she buys a product.

The Court: When you say it is suicide, you mean it would [1264] be unsuccessful?

The Witness: I mean it would be unsuccessful as an installation from the standpoint of the customer.

The Court: Commercially unsuccessful.

The Witness: That is right.

The Court: Very well. [1265]

Mr. Neave: I would like to have a photograph marked as Plaintiff's Exhibit 104, for identification.

(The photograph referred to was marked as Plaintiff's Exhibit 104, for identification.)

Mr. Neave: I am not sure, your Honor, whether I offered 103 in evidence.

The Court: Yes, you offered it. I don't think I have ruled on it. It is admitted.

(The document referred to, heretofore marked as Plaintiff's Exhibit No. 103, was received in evidence.)

[Note: Plaintiff's Exhibit No. 103 will be found in the Book of Exhibits at page 1298.]

(Testimony of Joseph Reddington Chamberlain)

Mr. Neave: I would like to have a second photograph marked as Plaintiff's Exhibit 105.

(The photograph referred to was marked as Plaintiff's Exhibit 105, for identification.)

The Witness: Which are which here?

Mr. O'Hearn: That (indicating) is 104 and that is 105.

Q. By Mr. Neave: Mr. Chamberlain, would you look at Plaintiff's Exhibits 104 and 105 and state whether or not they are illustrative of the pipe coil installations to which you have referred?

A. They are, sir. 104 is a freezer in a locker plant. The other picture is of a holding freezer with ceiling coils where there is stored considerable fish in a frozen state.

Q. In Plaintiff's Exhibit 104 the coils of the same appear to serve as shelves for products. Is that a common [1266] use of it?

A. It is, sir. The purpose of the shelves is to provide contact directly with the refrigerant for more rapid freezing. If you try to freeze a product with air, you get some losses in the terms of the temperature differences necessary to first refrigerate the air and then refrigerate the product from the air, whereas by placing coils directly on to pipes the product can be refrigerated directly from the refrigerant, due to contact.

Mr. Neave: May I have the reporter read the last part of the answer?

(Testimony of Joseph Reddington Chamberlain)

(The portion of the answer referred to was read as follows):

“If you try to freeze a product with air, you get some losses in the terms of the temperature differences necessary to first refrigerate the air and then refrigerate the product from the air, whereas by placing coils”—

Q. By Mr. Neave: Just a minute. Did you mean to say “placing coils”?

A. Placing the product directly onto pipes. I am very sorry if I said “coils.”

Q. Now, were such installations defrosted?

A. Yes.

Q. How frequently were they defrosted?

Mr. Lewis Lyon: Your Honor, I don't believe there is [1267] any particular foundation laid for any such question. It is a general question.

The Court: Such installations,—I think that is a little too broad.

Mr. Neave: I am talking about the pipe, generally speaking, the pipe type of installation. I am not referring to the particular installations on Plaintiff's Exhibit 104 and 105, which are illustrative of his testimony.

The Court: All right.

Mr. Lewis Lyon: I think the question then is too general, because no foundation has been laid at all for any such question. It is too general to have any probative value whatsoever.

The Court: Overruled.

The Witness: May I have the question again, please?

(Testimony of Joseph Reddington Chamberlain)

(The question was read.)

A. Such installations are defrosted periodically depending upon a great many conditions, but generally not more than twice a year.

Q. By Mr. Neave: In installations of this character which York has made, what type of defrosting has been sold or recommended?

A. In these applications if the refrigerant were brine, ordinarily warm brine would be circulated through the coils for the purpose of loosening the frost or even melting it. [1268] In a case of direct expansion refrigerant, where the refrigerant is boiled right in the coil, then we usually defrost with hot gas, loosen it sufficiently so that it can be knocked off and then swept up out of the room.

Q. Was that method of defrosting used prior to 1937?

A. It was, sir.

Q. Is it used today? A. It is, sir.

Mr. Neave: I offer in evidence Plaintiff's Exhibits 104 and 105.

Mr. Lewis Lyon: I don't think that there is any materiality to the exhibits, your Honor.

The Court: They are illustrative of his general testimony. The objection is overruled.

(The documents referred to, heretofore marked as Plaintiff's Exhibits 104 and 105, for identification, were received in evidence.)

[Note: Plaintiff's Exhibits Nos. 104 and 105 will be found in the Book of Exhibits at pages 1299 and 1300.]

(Testimony of Joseph Reddington Chamberlain)

The Court: These are both brine refrigerants?

The Witness: No, sir, they are both direct expansion.

Q. By Mr. Neave: What does that mean?

A. It means that the refrigerant is expanded into the coils and boils therein. There is no second refrigerant involved, in other words.

Q. It might be ammonia or Freon?

A. Ammonia. These are ammonia jobs. [1269]

Q. Now, you said that there was another type of refrigerating system other than the pipes. Now, what other type was sold by York prior to September, 1937?

A. What we call a unit air-conditioner, consisting of a nested pipe coil in a casing, through or over which air was blown by fan.

Q. Was the fan in the casing?

A. The fan was a part of the unit and in the casing.

Q. What refrigerants are used in such units?

A. Brine, Freon and ammonia.

Mr. Neave: I would like to have marked as Plaintiff's Exhibit 106 two sheets, one of which in the upper right-hand corner bears "Section 210-A, Page 63-B," and the other "Section 210-A, Page 64-B," dated May 20th, 1935.

The Clerk: Do you want the two sheets as one exhibit?

Mr. Neave: As one exhibit.

(The sheets referred to were marked as Plaintiff's Exhibit No. 106, for identification.)

Q. By Mr. Neave: Can you identify this Plaintiff's Exhibit 106? A. I can.

(Testimony of Joseph Reddington Chamberlain)

Q. What is it, please?

A. That is a page, the opposite sides to one page, from the York price book, dated May 20, 1935, showing the coil type air-conditioner which I just described; on page 63-B the [1270] F. B. 800 and F. B. 1400 unit, with suction trap and low pressure float connections, and in the lower left-hand corner the same conditioner with the front panel removed, showing the coils.

The other page bears the same date and shows a ceiling type unit of one, two and four-fan varieties. The nomenclature, if it means anything, it is the floor type bare coil, and 800 feet of pipe for the F. B. 800, and so on; and the ceiling type unit is the one-fan ceiling dry, "S" meaning I don't know what.

Q. Now, were units such as shown on Plaintiff's Exhibit 106 sold by York prior to September, 1937, for below freezing applications?

A. They were.

Q. Are similar units sold today for that purpose?

A. There were units earlier than these and there are units later than these, all having the same general design. However, there have been some structural changes, as indicated by change in design or standardization of the product.

Q. Looking at Plaintiff's Exhibit 106, page 63-B, what is the tank that is shown on the top of each of the units on that page?

A. That is, in general refrigeration parlance, a surge drum or suction trap. This particular application was for ammonia, and it was arranged for flooded operation. By [1271] "flooded" I mean the liquid was expanded into the drum, and by virtue of its elevation completely flooded

(Testimony of Joseph Reddington Chamberlain)

and wetted all the surface. On top—I mean connected in the drum is a flood valve which acted as the control. When that unit was used for brine, that is, brine circulation through the coils to act as a refrigerant, the surge drum was eliminated. It could be perfected or built with or without the surge drum.

Q. Looking at the lower left-hand unit on the same page, which has its front removed, what are the black cylindrical things above the pipes.

A. They are fans. There are three fans in that unit of the Sirocco type.

Q. Did you also sell a one-fan unit?

A. We sold a one-fan and a larger three-fan than shown here.

Q. Now, turning to the other page, 64-B, I observe that the lower two photographs of the ceiling unit do not have the tanks that are shown in the upper two photographs. Why is that?

A. They are arranged for brine, as is already noted on the sheet; with flanges only for brine.

Mr. Neave: I will offer this in evidence as Plaintiff's Exhibit 106.

The Court: Admitted. [1272]

(The sheets referred to, heretofore marked as Plaintiff's Exhibit No. 106, for identification, were received in evidence.)

[Note: Plaintiff's Exhibit No. 106 will be found in the Book of Exhibits at page 1301.]

(Testimony of Joseph Reddington Chamberlain)

Mr. Neave: I would like to have marked as Plaintiff's Exhibit 107 five sheets, and I must confess I have not got photostats of them.

Mr. Lewis Lyon: What sheets are they?

The Witness: I don't think they are in your book, Mr. Lyon.

Mr. Neave: I will get them for Mr. Lyon.

The Court: What is the purpose of that?

Mr. Neave: These show the general capacities of these units, your Honor.

The Court: The capacity?

Mr. Neave: In refrigeration; capabilities of refrigeration.

Mr. Lewis Lyon: I don't see the materiality of it, your Honor.

Mr. Neave: Perhaps we can get this done quickly by having it gone through.

Q. By Mr. Neave: Mr. Chamberlain, I show you Plaintiff's Exhibit 107, for identification, and ask you whether or not these sheets show the capacities of refrigeration of the various types of units illustrated in Plaintiff's Exhibit 106. [1273]

Mr. Lewis Lyon: In what regard?

The Court: In units of refrigeration?

Q. By Mr. Neave: Will you answer the question?

A. Those pages show the rating in tons of refrigeration at various temperatures of air entering the conditioner, which is the same as the room temperature, with various average brine temperatures through the coils or temperatures of the evaporating ammonia in the coils.

(Testimony of Joseph Reddington Chamberlain)

The Court: What do you mean by: "units in tons of refrigeration"? How can you have a ton of refrigeration?

The Witness: In refrigeration parlance, your Honor, back in the old days most refrigeration was thought of in ice melting capacity. Ice was the basic refrigerating medium before there was much mechanical refrigeration.

The Court: Tons of refrigeration are the equivalent of so many tons of ice?

The Witness: A ton of refrigeration is equivalent to melting one ton of ice from and at 32 degrees in 24 hours. That is the same as saying a ton of refrigeration is equivalent to 12,000 B.T.U.s per hour, or 200 B.T.U.s per minute heat absorption, or 288,000 B.T.U.s per 24 hours. That is the equivalent of melting one ton of ice, and it has nothing whatsoever to do with a ton of anything,—a ton of ice. The larger plants in refrigeration are rated in tons, because it is a more convenient figure to handle. Otherwise, it would [1284] get too big. The smaller units are rated in B.T.U. They say B.T.U., but actually they mean B.T.U.s per hour.

The Court: Then the ton of refrigeration is equivalent to the application of a certain quantity of B.T.U.s in 24 hours?

The Witness: That is right, and it refers to the melting of 2,000 pounds of ice in 24 hours. I say that because somebody might think it is a long ton.

The Court: Or a metric ton.

The Witness: That is right.

The Court: Or a Japanese ton.

(Testimony of Joseph Reddington Chamberlain)

Mr. Neave: I will offer Exhibit 107 in evidence.

Mr. Lewis Lyon: I still don't see the materiality of it, as to what the capacities of these machines are.

The Court: I don't, unless you are offering it as a scientific work.

Mr. Neave: I am offering it to show what at this date, which is 1935, these devices that are shown on Plaintiff's Exhibit 106 were capable of producing in the way of refrigeration.

I am now going to ask the witness:

Q. What temperatures were the units which were shown on the catalogue sheet, Plaintiff's Exhibit 106, capable of maintaining?

Mr. Lewis Lyon: That is absolutely immaterial, as to what [1275] they were capable of maintaining.

The Court: In the first place, coming to the second question before I go back to the other one, I think your objection would have to be that there isn't any foundation laid for that. In other words, it would have to be capable of maintaining in a given space or quantity of air, or something like that. And on the other one, I still can't see the materiality of it. Let me look at it.

Mr. Neave: The two are linked together, your Honor. 107 shows under what conditions what they are capable of maintaining. For instance, the left-hand column shows the temperature. If they have got to deliver 10 degrees to a room they will be able to deliver .8 tons of ice, is that fractional figure there, and I was going to ask the witness to explain that.

Mr. Lewis Lyon: What is the materiality, even if it is explained?

(Testimony of Joseph Reddington Chamberlain)

The Court: This says "F. B. 500 D." You haven't got any F. B. 500. You have got F. B. 800.

The Witness: F. B. 500 is the one-fan unit I spoke of in illustration, and the F. B. 800 and the F. B. 1400 are here. It is not illustrating the whole thing. That "D" means—"D-5" means 1935 in our nomenclature on that particular type of work.

The Court: Where is "D"—oh, "D-5"? [1276]

The Witness: Yes.

The Court: No. F. B. 800 D-5?

The Witness: That means floor type bare coil unit. The next number is the number of feet of three-quarter-inch pipe in there. The "D-5" means 1935. "D-6" would be 1936. "D" meaning A, B, C, D, which means—

Mr. Lewis Lyon: That would be 1945, wouldn't it? A, B, C, D?

The Witness: No, from 0 to 10 is "A." Savvy? [1277]

Mr. Lewis Lyon: A, B, C, D? D is the fourth letter.

The Witness: All right. We are in the fourth ten years of the century when we get there. From 0 to 10 would be A, then 10 to 20 would be B, 20 to 30 would be C and 30 to 40 would be D, as the fourth ten years.

Mr. Neave: No, the witness has testified that these units—

The Court: This may be material but if it is, I do not understand it.

Mr. Neave: Let me try to explain it to you.

The Court: I can understand more or less vaguely his very terse explanation of tons of refrigeration capacity.

Mr. Neave: Well, your Honor, here is the point that I am making. The witness has testified that these units were sold prior to 1937 for below freezing applications,

(Testimony of Joseph Reddington Chamberlain)

and now I am putting this in simply as a written corroboration of that testimony. These are capable of doing so.

Mr. Lewis Lyon: I don't see that it has any materiality.

The Court: The capacity and tons of refrigeration—here is F. B. 1400 D-5. The first column is the temperature, down to 34, between 34 and 36, and there is a red line drawn all the way across, and it says "Defrosting Arrangements must be provided in this zone."

Mr. Neave: That is the below freezing zone.

The Court: Well, it takes a jog over here some place. [1278] It says 40 pounds, 25.8 Fahrenheit.

The Witness: That is the temperature corresponding to the ammonia pressure at 40 pounds pressure.

The Court: It is the temperature of what?

The Witness: Of the ammonia.

The Court: Of the ammonia.

The Witness: Yes, and the other figure is the pressure of the ammonia at that same evaporating temperature.

The Court: And the temperature of the air entering the air-conditioner—what is that right under the 40 pounds, 25-8 Fahrenheit?

The Witness: That is the temperature of the ammonia which will exist.

The Court: But then what is this 1.1?

The Witness: That is the tons that it will produce if you come right straight across to find the entering air temperature.

The Court: Those are the tons?

The Witness: Yes, sir.

(Testimony of Joseph Reddington Chamberlain)

The Court: I see. In other words, if the temperature of the air entering the conditioner, that is, just atmospheric temperature, general air, any kind of air.

The Witness: That is any kind of air taken out of a refrigerated room. That is the room temperature. Entering air is the temperature of the air entering the conditioner. [1279]

The Court: I thought that is what came out of the conditioner.

The Witness: No, sir. It comes out of the conditioner colder than that. Obviously we have to have heat pick-up in order to refrigerate so that you bring air back at the temperature you hold, say 10 degrees or 20 degrees, or what have you, and the air going into the space is colder by certain air range that can be calculated from that tons and the cubic feet of air handled as listed in the table up at the top.

The Court: Well, then there is another little note in red ink here, "Temperature of air entering conditioner, 80 degrees."

The Witness: Yes, sir.

The Court: And then right across there you don't have anything to denominate tons of refrigeration. It says "Select conditioner size for maximum of 18-hour operation per day to provide for defrosting in this zone."

The Witness: If the temperature of the coils are cold enough so that the moisture condensed on the coils reaches a dew point below freezing, frost is formed. However, if you select the equipment large enough so that you will have some times when refrigeration can be stopped with the fans continuing in operation, the air being higher than freezing the air itself will defrost the unit so that no

(Testimony of Joseph Reddington Chamberlain)

defrosting device is [1280] necessary. That is what that line means?

The Court: In other words, with the 80-degree or 75-degree temperature here of air—

The Witness: If you get a frost it will melt itself off, providing you—

The Court: You shut the machine down?

The Witness: Just stop the refrigeration on the coil. That is all it means.

Mr. Neave: All I am trying to do, your Honor, is to show what the situation was prior to 1937, and I am going to go on from here.

The Court: I think it is a good idea to go on, but this will just be marked for identification.

Mr. Neave: Very well, sir.

The Court: No. 107, for identification.

(The document referred to was marked as Plaintiff's Exhibit No. 107, for identification.)

[Note: Plaintiff's Exhibit No. 107 will be found in the Book of Exhibits at page 1303.]

Mr. Neave: Q. Prior to September, 1937 how were units of the type shown in Exhibit 106 defrosted?

Mr. Lewis Lyon: That is objected to as too general a statement, your Honor. If it is an endeavor to prove any prior use or anything as to prior art, the question of how were a multitude of units defrosted under varying conditions is certainly not proper.

Mr. Neave: I will rephrase the question and ask the [1281] witness in these units as sold by the York Cor-

(Testimony of Joseph Reddington Chamberlain)

poration prior to September, 1937, what methods of defrosting were available with them.

Mr. Lewis Lyon: I still think that is too indefinite, your Honor, as to "these units."

The Court: Overruled. He has got four units shown here.

The Witness: Any of these units could be defrosted if they were above freezing in the manner just described to your Honor by picking them large enough.

The Court: You mean to just shut it off?

The Witness: Just shut it off.

The Court: Above freezing?

The Witness: Above freezing.

The Court: But the unit had to be larger?

The Witness: The unit had to be larger. That is still present practice. I don't believe there is any argument with that at all.

The Court: You mean the unit had to be—

The Witness: If we had a one-ton load, we would want to pick a unit with more than one-ton load, one-ton capacity, so that it could shut down sufficient time to defrost itself by virtue of air at greater than freezing passing over it.

Q. By Mr. Neave: That, I understand, is where you have above-freezing temperatures?

A. Yes, sir. [1282]

Q. Now, what is the situation where you had below freezing temperatures?

A. Below freezing, there were several methods by which these units could be defrosted.

Mr. Lewis Lyon: Your Honor, I don't think the question was by what they could be done. We know a lot of

(Testimony of Joseph Reddington Chamberlain)

things now that they obviously didn't know then, as shown by their own catalogue. It is only a question of what methods were used, not what methods could be used.

The Court: I think that is what his question comprehended.

Mr. Neave: That is right.

Mr. Lewis Lyon: That isn't what the witness said.

Mr. Neave: Just confine yourself to what was used, Mr. Chamberlain, if you will.

The Witness: The defrosting methods that were used by the York Corporation—

The Court: On these units on Exhibit 106.

The Witness: On these units on Exhibit 106, are—

The Court: Were. He is asking about prior to 1937.

The Witness: Were,—air, and when I say air I mean air higher than 32 degrees, sometimes termed warm air.

When the unit was refrigerated with brine, warm brine was circulated through the coil and by warm brine I mean brine with a temperature higher than 32 degrees. [1283]

Also gas was used. Gas is derived from the refrigerating machine.

Q. By Mr. Neave: Now let us take up air. How is the air introduced into the unit?

A. In the case of air, duct work was arranged in such manner that the air to the unit could be shut off from the refrigerated space, and air from the unit could be shut off—

The Court: Wait a minute. Air to the unit from the refrigerated space—I understand. All right.

The Witness: Air from the refrigerated space to the unit could be shut off, and a similar set of dampers to the outside opened and by means of continuing the fan opera-

(Testimony of Joseph Reddington Chamberlain)

tion air was circulated over the coils drawing air from a warm source and discharging it back outside of the refrigerated space.

The Court: By that method the refrigerating unit had to be isolated from the refrigerated space, the space desired to be refrigerated during the time of defrosting?

The Witness: The unit itself did not necessarily have to be isolated but the air communication from the unit to the refrigerated space was isolated.

The Court: That is what I mean.

The Witness: Yes, sir.

The Court: It was isolated in the sense that there was no common circulation of air. [1284]

The Witness: No common circulation into the refrigerated space or from the refrigerated space.

Q. By Mr. Neave: When such a unit was placed inside the refrigerated space and air defrosting was used, did any of the air for the defrosting get out into the refrigerated space.

A. Not if we could help it. I say that because there may have been leaks due to improper connections or poor joints in duct work. But ostensibly and substantially no air could get into the refrigerated space.

Q. That is, the air came in through the duct work into the unit, through the unit and out again through duct work? A. Correct.

The Court: So that the air in the refrigerated space remained still?

The Witness: Correct.

The Court: And therefore had a tendency to retain its colder temperature.

The Witness: Whatever it had; yes, sir.

(Testimony of Joseph Reddington Chamberlain)

Q. By Mr. Neave: How long did it require to defrost with hot air, or warm air?

Mr. Lewis Lyon: That is objected to as obviously a question that depends upon the capacity and so many other things.

The Court: Let us take any one of these individual machines here. [1285]

Mr. Lewis Lyon: It depends on temperature, it depends upon many things, your Honor.

Mr. Neave: Suppose we let the witness answer and see what he says.

The Court: Let's take one machine. Let's take F. B. 800.

The Witness: That depends on a great many things, as Mr. Lyon has already suggested to me. It depends on how much frost there is, how much air is circulated over the coils, the temperature of that air. If the unit is operated in accordance with instructions it should not take more than 10 minutes to 30 minutes.

The Court: Let me ask a question. Assuming that F. B. 800 was used to maintain a temperature in a room or space, whatever you call it, locker room, of 10 degrees or below, how long would it take to defrost that unit?

The Witness: Your Honor, my answer was inclusive of all the units, and it applies the same to the F. B. 400 or 800, or any of them, because they are in proportion larger, they have a proportionately larger amount of air.

The Court: Let's stick to F. B. 800.

The Witness: I would say specifically that that would require from 10 minutes to 30 minutes to defrost the unit.

(Testimony of Joseph Reddington Chamberlain)

The Court: By air?

The Witness: By air. [1286]

The Court: And used to keep a room temperature fitted to the size at 10 or below?

The Witness: Correct.

The Court: 10 minutes to 30 minutes?

The Witness: Yes, sir.

The Court: All right. I think it is time to recess. How much longer will you be with this witness?

Mr. Neave: Well, your Honor, I would say I am a little more than about a third of the way through his testimony. We took about an hour this afternoon, I believe. I think we would get through probably in an hour and a half or an hour and three-quarters. He is our last witness on our case.

The Court: You will have rebuttal?

Mr. Lewis Lyon: Yes, your Honor.

The Court: How many witnesses?

Mr. Lewis Lyon: Four, as I see it at the present time.

The Court: Factual witnesses?

Mr. Lewis Lyon: Yes, three factual and one expert.

Mr. Neave: I think I will take longer than an hour and three-quarters, your Honor.

The Court: What I am trying to think about is whether or not we can finish all the evidence tomorrow, and that will give you tomorrow night for all of you gentlemen to read these volumes of transcript and get ready for argument the next morning. [1287]

Mr. Neave: I think it is unlikely that we can finish tomorrow. I don't know, though, because I don't know how long Mr. Lyon's witnesses are going to be.

(Testimony of Joseph Reddington Chamberlain)

Mr. Lewis Lyon: Not any of them are going to be very long.

The Court: I will have to finish this case this week because I have to start the criminal calendar Monday morning, and I cannot postpone that. I do not think that it would be wise to have some other judge hear the argument after I heard the testimony.

Mr. Neave: No, your Honor, we wouldn't want that.

I don't know what your practice is about Saturday.

The Court: I never come down Saturday except I have been here every Saturday since I got back from my vacation all day.

Mr. Lewis Lyon: I don't see any reason why, if the testimony of this witness isn't so long we can't finish the testimony tomorrow, your Honor.

Mr. Neave: How long argument would your Honor want on this?

The Court: Until one side or the other satisfies me. I don't know.

You say you had another memorandum of law?

Mr. Neave: We have no memorandum of law. There is a point of law that I want to make, and I will cite some cases to your Honor about it, and if your Honor is interested in [1288] having a memorandum I will have it prepared.

The Court: Can you have that prepared and sent up tomorrow?

(Testimony of Joseph Reddington Chamberlain)

Mr. Neave: We are having a lot of difficulty getting typewriting help, and I don't know just when we will get at it. I think the point I want to make I can make to your Honor on the argument, as far as the law is concerned.

The Court: How long would you gentlemen want to argue? How long do you think you would need?

Mr. Lewis Lyon: I think about one hour could dispose of the matter, unless there are some particular points that your Honor desires to direct attention upon.

The Court: And you?

Mr. Neave: I never like to talk more than an hour but I find that these things stretch out.

The Court: Yes, they do.

I had in mind that I would like to allow about a day for argument on both sides, and I had hoped to be able to finish all of the evidence at least tomorrow and argue Friday.

Mr. Neave: Perhaps we can.

The Court: Let us see if we can do that, even if we have to stay late tomorrow evening.

Recess until 10:00 o'clock.

(Whereupon, at 4:35 o'clock p. m., a recess was taken until 10:00 o'clock a. m., Thursday, September 26, 1946.) [1289]

Los Angeles, California, September 26, 1946, 10:00 o'clock a. m.

The Court: Ex parte?

The Clerk: No ex parte, your Honor. Further trial.

The Court: Proceed.

Mr. Neave: Mr. Chamberlain.

JOSEPH REDDINGTON CHAMBERLAIN

the witness on the stand at the time of adjournment, having been previously duly sworn, resumed the stand and testified further as follows:

Direct Examination (Continued)

By Mr. Neave:

Q. Mr. Chamberlain, when brine is used as a refrigerant, how cold can it be made?

A. It can be made almost as cold—any degree—minus 30 in the case of calcium brine, or even lower with some of the special brines now in use.

Q. When we closed yesterday we had been discussing the use of warm air defrosting. Now prior to September 1937 did you sell blower units for below freezing temperatures with brine spray defrosting equipment?

A. Yes, we did.

Mr. Neave: I would like to have drawing 152895 marked as Plaintiff's Exhibit 108, and drawing 15347 marked as Plaintiff's Exhibit 109, and drawing 153423 marked as Plaintiff's [1293] Exhibit 110.

The Court: That is for identification?

Mr. Neave: Yes, your Honor.

(The documents referred to marked Plaintiff's Exhibits 108, 109 and 110 respectively for identification.)

(Testimony of Joseph Reddington Chamberlain)

By Mr. Neave:

Q. Now, Mr. Chamberlain, can you identify these three drawings, Plaintiff's Exhibits 108, 109 and 110?

A. I can. The first drawings shows an assembly—

Q. Which one of them is that, 108?

A. I don't know how you have them numbered.

Q. That is drawing No. 152895? A. Correct.

Q. Just mark on it "108."

A. Exhibit 108 shows an assembly of the F. B. 1400 D-5 air unit and lists thereon the various modifications. Among these modifications are the spray header for defrosting as shown on Exhibit 109, and the standard catch pan or drip pan as shown on Exhibit 110 for use when this particular unit is being defrosted by means of brine.

The Court: This is brine applied to the outside? You are not thinking of the refrigerant brine.

The Witness: No, sir. I am talking about brine sprinkled over the coils for the purpose of defrosting.

The Court: On the outside of the coils? [1294]

The Witness: Yes, sir. Through the coils may be either brine or a refrigerant.

The Court: But in discussing these particular plans shown here in this scheme, when you use the word "brine" you mean the brine outside?

The Witness: Yes, sir. [1295]

Q. By Mr. Neave: Now, where was the header shown in Plaintiff's Exhibit 109 placed with respect to the coils which are shown in Plaintiff's 108?

A. The header was placed above the coils as indicated in Exhibit 109, Section AA, in the left-hand corner of the drawing, showing the top row of coils and the application of those headers to the unit in relation to the fan.

(Testimony of Joseph Reddington Chamberlain)

Q. Where was the pan in Plaintiff's Exhibit 110 placed with relation to the unit as shown in Plaintiff's Exhibit 108?

A. The pan is placed beneath the unit, in place of the pan shown on the drawing, Exhibit 108. The unit sets into the flat portion of the pan shown in 110. The flat portion you will note is 2 feet 3 inches, whereas the width of the unit itself is 2 feet $1\frac{3}{8}$, so that it would set into that flat portion.

Q. Now, were these units, with the header and pan shown in these drawings, those that you testified were sold prior to 1937?

A. They were.

Q. Now, will you explain just how the brine spray defrosting took place in this unit?

A. When it was necessary to defrost, the fan was shut down and brine fed into the header from either outside or inside the refrigerated space; was pumped in the header and [1296] allowed to sprinkle the coils by means of the nozzles indicated on the drawing, as shown in 109. The spray header there indicates nozzles thereon by the numeral 70904-F No. 1, which is the York pattern number for that particular size nozzle. Brine was recirculated by means of the pump, usually.

Mr. Lewis Lyon: The pump is not shown on any of those drawings, is it?

The Witness: No, sir.

Mr. Lewis Lyon: Neither is the concentration tank.

Q. By Mr. Neave: Where did the brine go—

A. The brine was caught—

(Testimony of Joseph Reddington Chamberlain)

Q. —from the pan?

A. It was caught in the pan and returned to a brine tank within the plant somewhere. It may have been an existent tank or one particular for the purpose.

Q. Was the brine tank installed inside or outside of the refrigerated space?

A. It could be installed either outside or inside the refrigerated space.

Q. In the installations with which you are familiar, which was it? A. I have seen them both ways.

Q. Now, how long did it take for the brine spray to defrost these units?

A. That again depended a great deal upon how much frost [1297] was necessary to be removed, but ordinarily it took two to five minutes.

Q. What effect did this brine defrosting of these units have upon the temperature of the refrigerated space?

A. It didn't affect the refrigerated space to any appreciable amount.

Q. Now, do you sell, or have you sold, since 1940, units similar to those shown in Plaintiff's Exhibits 108, 109 and 110 with brine spray defrosting equipment?

A. We have.

Q. And they are operated in the same manner as you described?

A. They are operated in the same manner as described.

Q. Were units such as shown on Plaintiff's Exhibit 106 sold prior to September, 1937, with gas defrosting for below freezing temperatures? A. They were.

(Testimony of Joseph Reddington Chamberlain)

Q. Will you explain how gas defrosting operates?

A. Gas defrosting operates by means of admitting gas to the coils, either top or bottom, and within the coil the gas gives up its latent heat of condensation, and thereby heats the inside of the coil and thus melts the frost.

Q. What were these gases you are talking about?

A. These are the gases that are used as the refrigerant. [1298]

Q. And where do they come from?

A. They came from the high side of the compressor, that is, the discharge side of the compressor.

Q. In order to defrost, do these gases have to be at a high temperature? A. They do not.

Q. When you said you used latent heat, what do you mean by latent heat?

A. I mean the heat required to condense a refrigerant gas. Just generally known as the heat of condensation. It is just the opposite from the heat of evaporation.

Q. What is sensible heat?

A. Sensible heat is the heat required to change the temperature of a substance as contrasted to latent heat, which is the heat required to change the state of a substance from and at a given temperature and with a given pressure.

Q. Did you say "from and at"? A. Yes, I did.

Q. Now on this gas defrosting, what actual physical acts did you have to do in order to defrost?

A. Shut off the fan, shut off the suction valve to the machine, that is, the compressor or the suction line from the unit, and open a gas valve, either line the gas into the top or the bottom of the coil. It made no difference

(Testimony of Joseph Reddington Chamberlain)

where. In some cases, however, it was necessary to shut off the refrigeration and remove some of the refrigerant that would be in the coil, and in addition sometimes as a means for keeping the coil drained while defrosting was used. It all depended upon what volume might be available within the coil to take the condenser refrigerant which was condensed during the defrosting operation.

Q. How long does it take to defrost by gas?

A. That again depended upon how much frost was on the coils and whether the operator followed recommendations. However, it could be done very easily from 10 to 15, maybe 20, minutes in the average case.

Q. What relation is there between the pressure and temperature of gases in these coils?

A. The pressure and temperature within the coil have to do with the rate of admitting gas from the high pressure side and how fast the gas is evaporated in the coil. Ordinarily the temperature and pressure are both rather low.

Q. Is there any particular relation between the two?

A. Every refrigerant has a particular pressure, particular temperature for a particular pressure.

Q. As the pressure goes up does the temperature go up or down?

A. They go together. When the pressure goes up the temperature goes up, and vice versa.

Q. What effect did defrosting by gas have upon the [1300] refrigerated space with these units?

A. It had no effect. The fan was shut down and any gas that was admitted was admitted within the coil itself.

(Testimony of Joseph Reddington Chamberlain)

Q. Since 1940, have you sold units with gas defrosting, blower units? A. We have sold many of them.

Q. Similar to those shown in 106?

A. Many of them.

Q. You heard Mr. Jarvis testify in this case?

A. I did.

Q. Do you agree with him that defrosting was the biggest problem that the industry had to solve before the present day frozen food industry could begin to travel?

A. I do not.

Q. Why not?

A. Well, in the first place, we have many problems besides defrosting and we already had very good means of defrosting, which we still use today.

Q. What factors determine the kind of defrosting which you will sell with an equipment?

A. That is determined by the plant size, the application, the facilities within the plant, whether it has more than one evaporator or a single evaporator, the size of the plant—I think I have mentioned about everything I can think of in that. [1301]

Q. Let us take up each one of the various means of defrosting that you have mentioned. Take air defrosting. Under what circumstances would you sell air defrosting with a unit?

A. Where the unit can be conveniently located to outside sources of air, that is, a source of air outside the refrigerated space without the necessity of complicated and expensive duct work.

Q. What about warm brine in the coils?

A. Warm brine through the coils was the usual method where brine is used as a refrigerant.

(Testimony of Joseph Reddington Chamberlain)

Q. Have you since 1940 sold—

The Court: What is the last statement, warm brine through the coils was the usual method where brine is used as a refrigerant?

The Witness: Yes.

The Court: When you use brine there you use it as distinguished from Freon and these other refrigerants?

The Witness: Yes.

The Court: Just plain old brine?

The Witness: Yes, flowing in the coils. There the facilities for defrosting are already available so it is customary to use it.

You asked a question? [1302]

By Mr. Neave:

Q. Since 1940 have you sold installations with warm brine defrosting?

A. We have. In fact, that is the accepted method aboard ship. Since 1943 York has installed over 30 ships for frozen cargo all using brine and that method of defrosting.

Q. What about brine spray, under what circumstances do you sell brine spray defrosting equipment?

A. Where we want to remove the frost rather rapidly, where there are usually the facilities of a brine tank, etc., that already exists; also I can't think of any other reason, just a convenient method if it is handy. That determines what we use.

Q. What effect, if any, does the brine have upon the frost or ice?

A. The brine has a dual effect. It acts to melt the frost the same as would water due to its change in temperature.

(Testimony of Joseph Reddington Chamberlain)

The Court: That is the brine inside?

The Witness: The brine spray over the coils.

The Court: The brine spray?

The Witness: Yes.

In addition brine has a solvent action and dissolves the frost. It acts the same as you witness by putting salt on a sidewalk in the wintertime. It melts the ice. [1303]

The Court: What makes salt melt the ice?

The Witness: Because salt is a low freezing point material. That is, when mixed with water it forms what is known as a low freezing point temperature and therefore when further mixed with water it tends to lower the freezing point of the material that it is going in solution with. So it really goes in solution with water and therefore melts it or lowers the freezing point of the frost.

The Court: That is what it does, but what makes the salt melt the ice?

The Witness: I don't know what makes it.

The Court: All right. You don't know.

The Witness: I do know that it does it.

By Mr. Neave:

Q. Now in the use of the brine spray defrost, does the brine spray get onto the contents of the room, of the refrigerated space? A. No.

The Court: On this matter of defrosting—this is a very practical question—why is it when they want to chill champagne, for instance, or wine you will put ice in the box and salt on it?

The Witness: Just for the reason that I mentioned a little bit ago. The salt lowers the freezing point of the ice, and in doing so— [1304]

(Testimony of Joseph Reddington Chamberlain)

The Court: It lowers the freezing point of the ice?

The Witness: Yes, sir. It lowers the freezing point of the ice and causes a reduced temperature, what is known as a low freezing point mixture.

When the salt dissolves the ice the ice takes up this latent heat of fusion which is the amount of heat that is required to melt a certain amount of ice, and it does so rapidly and so fast that it causes a material reduction in temperature. It lowers the freezing point of the mixture. [1305]

The Court: In other words, it prevents the ice from melting so fast?

The Witness: It makes it melt faster.

The Court: It makes it melt faster?

The Witness: Yes, sir.

Q. By Mr. Neave: In changing the state from the solid to the liquid, what happens?

A. When it changes from solid to the liquid?

Q. Yes.

A. It takes up the latent heat of fusion.

Q. And thereby takes the heat from the champagne, absorbs the heat from the champagne?

A. Correct.

Q. And thereby cools the champagne?

A. Yes. I don't know why we didn't say ice cream.

The Court: Well, you keep ice cream in boxes?

The Witness: Your Honor, we used to freeze ice cream with salt.

The Court: Oh, surely. The old method was to freeze the ice cream with ice and salt around it.

(Testimony of Joseph Reddington Chamberlain)

Q. By Mr. Neave: Now, under what circumstances was gas defrosting equipment sold by York?

A. That is one of the most handy methods we have, provided there is more than one evaporator on a given compressor, so that we can defrost one evaporator while operating the [1306] other, to furnish a heat source to obtain the gas which I just mentioned.

Q. You use the gas from one evaporator to defrost another evaporator?

A. Yes, indeed, and there may be more than one evaporator furnishing gas for the purpose of defrosting a single evaporator.

Q. And there may be more than one compressor for all of the evaporators? A. Correct.

Q. Now, in gas defrosting, in what condition are the coils left after defrosting?

A. The coils are left perfectly dry.

Q. Will gas defrosting take the frost and ice off the coils, if properly done? A. It will.

The Court: How long does it take, say, in a 1400 unit, your F. B. 1400?

The Witness: Ordinarily it takes somewhere between 10 minutes and a half hour, depending upon the size of the coil and the amount of frost.

The Court: And there isn't any freezing being done at that time?

The Witness: No, sir.

The Court: Say it is in a room for which you specify that size, heater,— [1307]

The Witness: That's right.

The Court: —to keep it below freezing,—

(Testimony of Joseph Reddington Chamberlain)

The Witness: Correct.

The Court: —would the temperature of that room remain below freezing?

The Witness: It would.

The Court: It wouldn't affect the temperature of the air in the room?

The Witness: No, sir. This coil is enclosed in its own casing, and you admit the hot gas to the coil and the fan is shut down so that it doesn't blow air around, and any effect you would get would be a small effect, right adjacent to the unit, which is the same story in all defrosting regardless of how done, with the exception of where cold brine is used. You might use brine in the room that is being cooled in a brine pipe setting in the room, and that would be as cold as the room itself, and obviously you are not adding any heat.

The Court: When you run that gas through the 1400 feet of pipe in the unit, what becomes of the moisture that is in that ice? Does it go into the air?

The Witness: It goes,—it drops down into the pan below the unit, and is drained away.

The Court: That is true of the brine defrosting?

The Witness: It is, sir.

The Court: And the hot air defrosting? [1308]

The Witness: The hot air.

The Court: Well, we haven't come to the hot air yet.

The Witness: We talked about it yesterday.

Mr. Neave: That was in the ducts. It went through the ducts, went into the unit, and out through ducts.

The Court: In other words, it surrounds the unit?

The Witness: That is right.

(Testimony of Joseph Reddington Chamberlain)

The Court: And the same thing happens there?

The Witness: Correct.

The Court: The ice drops down and melts?

The Witness: Is melted, and the water drops down and is drained away.

Q. By Mr. Neave: Mr. Chamberlain, as to the hot air defrosting, the judge asked you whether the hot air surrounded the unit.

A. The hot air surrounds the coil, is pumped through the units.

The Court: Well, it is on the outside of the coil?

The Witness: It is on the outside of the coil, but inside of the casing.

The Court: I understand. Now, the exhibit with all this fish up in Alaska, what was the number,—No. 103?

Mr. Neave: I believe so. No,—

The Court: I mean the one with the pipe coils all across the ceiling. [1309]

Mr. Neave: 105, I believe, your Honor.

The Court: You remember what I am talking about.

The Witness: Yes.

The Court: How would you defrost that?

The Witness: That could be—

The Court: Oh, I remember now. You testified you run brine through it and take a shovel and scrape it out?

The Witness: I said if brine was used as a refrigerant, the warm brine would loosen it and then we could just knock it off by tapping it with a wooden handle, or something, and then sweep it up.

The Court: You would have to remove all that fish, then, wouldn't you?

(Testimony of Joseph Reddington Chamberlain)

The Witness: Not necessarily. The fish is all frozen. Most of the moisture which is there came from the fish to start with.

The Court: So you let the ice fall on the commodity or on the fish?

The Witness: You could. In addition, the thing you want to remember in regard to that type of job, which is way below freezing, is that the frost isn't necessarily ice. It may be what is called hoarfrost, and whenever the temperature is below or about zero, the frost formed is not necessarily a hard frost. It is a soft, fluffy material. You can sweep it off with a broom. [1310]

The Court: Then it will drop on the food, the commodity, or the contents there, or whatever is underneath?

The Witness: Yes. Ordinarily these coils are placed over the aisles. You have to have certain aisles, passageways, to get—

The Court: Well, they are not that way in this particular fish exhibit?

The Witness: They are not in the fish exhibit, no.

The Court: They are all over the ceiling?

The Witness: Correct.

The Court: What if they were going to store something else there, like ice cream or pie?

The Witness: Well, ice cream or pie would be in closed containers, some kind of a box.

The Court: Necessarily?

The Witness: Why, I have never seen it otherwise, your Honor. Of course, you can leave it open. That is your privilege.

(Testimony of Joseph Reddington Chamberlain)

Q. By Mr. Neave: Now, you spoke about these various methods of defrosting not raising the temperature of the refrigerated space. Do you sell water defrosting equipment now? A. Yes.

Q. Now, when you use water defrosting equipment which you sell, is the temperature of the refrigerated space raised [1311] any more or any less than with these other types of defrosting? A. The same thing exactly.

Q. And that is because it takes place inside of this enclosed unit? A. Correct.

Q. Now, in each of these methods of defrosting, including water defrosting, what is it that melts the frost or the ice?

A. All methods of defrosting require heat to melt the ice, with the exception of the brine spray method which utilizes the solvent action of the salt for defrosting,—

Q. In addition,—

A. —in addition to the temperature change.

Q. When a compressor is stopped and refrigerant is still left in the coil, what change of temperature takes place in the coil?

A. When the refrigeration is stopped, we are talking about?

Q. We are talking about the compressor being stopped.

A. Yes, but we are talking about direct expansion, and not the brine through the coils?

Q. No. I am talking about ammonia or Freon.

A. As soon as the refrigeration is stopped, the temperature in the coil reaches the temperature of the ice on the coil or frost on the coil, and the pressure existing in the [1312] coil will be that corresponding to the tempera-

(Testimony of Joseph Reddington Chamberlain)

ture in the coil, and as heat is added to that coil for the purpose of melting frost, the temperature of the refrigerant will raise, because the coils have been raised in temperature, and the pressure will likewise be raised with a temperature corresponding—I mean, a pressure corresponding to that temperature. There is in a refrigerant or any material that can be vaporized a very definite temperature for each pressure, or very definite pressure for each temperature. That we call temperature corresponding to the pressure. It is the same with steam, or water, or what-have-you.

Q. Can you tell me— As an example, suppose that you had a coil which had been raised to a temperature of 70 degrees by 70-degree water. What would be the corresponding pressure in that coil if the refrigerant were ammonia, let us say?

A. If it were ammonia, the temperature would approach 70 degrees, if you put 70-degree water over the coil. You are assuming that the refrigeration has been stopped?

Q. Yes, in the condition I described.

A. And the pressure attained then would correspond to approximately 70 degrees, which will be about 114 pounds gauge pressure.

Q. In the coils? A. In the coils. [1313]

Q. Now, in that condition—

The Court: What do you mean by 114 pounds gauge pressure?

The Witness: Your Honor, pressure is measured in two manners; first, absolute pressure, which is the pressure read on the gauge— —

(Testimony of Joseph Reddington Chamberlain)

The Court: That is the total pressure?

The Witness: —plus the pressure of the atmosphere or 14.7 pounds per square inch. Gauge pressure is the pressure read on the gauge you are looking at.

The Court: You say it is 114. That is 114 pounds per square inch?

The Witness: Per square inch, yes, sir.

The Court: But you don't have a square inch.

The Witness: Yes, sir. 114 pounds per square inch, that is the unit of pressure. You can say square foot or square inch, and it doesn't mean you have a certain dimension, but it means that it is measured in that unit of pressure.

Q. By Mr. Neave: Well, if you have a condition where the coil is at 70 degrees, and the pressure is 114 pounds, would you say that was a critical pressure within the coil?

A. No, indeed, that is not a critical pressure.

Q. Prior to 1937 what ammonia pressures were developed in the coils or units, blower units, sold by York, with gas [1314] defrosting?

A. Whatever pressure was necessary to melt the frost off the coils, and the frost would be removed from the coils before they got anywhere near the condensing pressure of the system, which may be 150 to 185 pounds gauge pressure per square inch, I should say.

Q. By the time the frost was removed from the coils, what would be the pressure in pounds within the coil? Would it be below 114 pounds?

A. It may be 100 pounds or 114, but wouldn't go much higher than that.

(Testimony of Joseph Reddington Chamberlain)

Q. Now, in water defrosting does the water freeze on the coil during the defrosting operation?

A. No. [1315]

Q. Why is that?

A. If water is left on a coil below freezing, such as a drop of water, that drop will freeze when the temperature of the water has first been reduced to 32 degrees Fahrenheit, and then the latent heat of fusion has been removed, amounting to 144 B.T.U.'s per pound.

On the other hand, if the water is flowing over the coil it has a greater mass and flowing over the coil with this great mass it does not stay long enough to either absorb enough heat to reduce itself to 32 degrees nor to absorb the 144 B.T.U.'s which is the latent heat of fusion.

The Court: Why bother with brine at all then, if water would do the same thing?

The Witness: Brine has an additional advantage, your Honor, in that it can be used even though the brine is cold because of the solvent action of brine. And it is rapid. It is a rapid means of defrosting. It also does not have to have any precautions taken concerning a freeze.

By Mr. Neave:

Q. In this brine defrosting, is the brine thrown away after the spray has defrosted it once

A. The brine is re-circulated but additional salt must be added to maintain its concentration above a point to prevent it from freezing.

Q. With respect to your sales of blower units, since [1316] 1940, what proportion of blower units of York manufacture equipped with water defrost, exclusive of Government sales, have you made of your total blower unit sales?

(Testimony of Joseph Reddington Chamberlain)

Mr. Lewis Lyon: That is objected to on the ground the witness hasn't in any way been qualified to answer the question.

Mr. Neave: Do you know?

Mr. Lewis Lyon: He is purely an engineer.

By Mr. Neave:

Q. Do you know, Mr. Chamberlain?

The Witness: Yes, I know.

The Court: If he knows, he can answer it.

The Witness: Very close to 11 per cent.

The Court: That is since when?

Mr. Neave: 1940.

The Witness: 1940.

The Court: 11 per cent. Is that in numbers or is that—

The Witness: In units.

The Court: —in refrigerating tons, or whatever you measure it by?

The Witness: It is in number of units, not in tons.

The Court: Number of units?

The Witness: Yes, sir.

By Mr. Neave:

Q. Blower units? [1317]

A. Number of factory built blower units.

In tons the figure would be very much less.

The Court: It would be less?

The Witness: Very much less.

The Court: As they are used in the smaller units?

The Witness: They are, sir.

(Testimony of Joseph Reddington Chamberlain)

By Mr. Neave:

Q. In your experience, is specific heat measured in terms of volume?

A. The accepted definition of specific heat is in terms of weight. The definition itself says unit weight.

Q. That is the definition of specific heat?

A. That is the accepted definition of specific heat.

The Court: Unit weight?

The Witness: Yes, sir.

That means one pound or one kilogram or what have you, depending upon the system of measurement. In other words, if you are using the metric system it would be per gram or in the case of the English system it would be per pound of a substance. That is the reason I said unit weight, because it can apply to either system of measurement.

The Court: What has specific heat to do with unit weight?

Mr. Neave: The definition of specific heat brings in the question of weight, that is the way you define it, as I under- [1318] stand it, and Mr. Doble the other day said that there might be two ways of figuring specific heat. I am asking the witness for his views on that.

The Court: I see. All right.

By Mr. Neave:

Q. Will you turn to Defendant's Exhibit S, at page 43, and I call your attention to the top of the left-hand side of the page.

The Court: Defendant's Exhibit S?

Mr. Neave: Yes.

The Court: What is it?

(Testimony of Joseph Reddington Chamberlain)

(The document referred to was exhibited to the court.)

The Court: Yes, I remember it.

By Mr. Neave:

Q. Now there it says: "These chillers must not be used in fresh meat or vegetable rooms * * *"

Now to what chillers is this exhibit referring?

A. Referring to what was known as a fan fin spaced chiller. As a matter of fact, as manufactured by York Corporation the units were specifically designed for refrigerating rooms having the food in packages and not for meat or vegetables open. They were not equipped with humidifying means and therefore if they were applied indiscriminately to fresh meats and vegetables they would dehydrate the product.

Q. Did not these units frost up? [1319]

A. Yes, they did.

Q. What did you do about it?

A. They were limited to temperature of 35 degrees or higher, as stated, and a minimum evaporated temperature of 25 degrees, so that that established a cycle of operation. When the units shut down automatically the fan continued to run and with a temperature in the room of higher than 35 degrees they would automatically defrost. That was the reason for that statement.

Q. Now will you turn to the second page, page 44, of Exhibit S, and in the second column toward the bottom it states: "Defrost the chiller after the moth-killing operation; the condensing unit must be shut down manually. The defrosting is accomplished while the temperature is rising to 40 degrees Fahrenheit."

(Testimony of Joseph Reddington Chamberlain)

Now why was it done that way?

A. You have to read the rest of the story under fur storage to understand what that one paragraph means.

In the first place, fur storages are maintained at somewhere between 40 and 45 degrees, substantially above freezing, and then it is necessary periodically to drop the temperature to around 20 degrees in order to kill the moth larvae that might be in the furs. At least it stunts them and prevents them from growing.

The Court: It permanently stunts them? [1320]

The Witness: Yes, sir. It kills moths when you go down to low temperature, because they can't exist, and that operation is over the weekend usually, when the room is shut down and there is no traffic in and out of the room. At that time they set the thermostat low, let the thing pull down and hold it over the weekend or 24 to 48 hours, as stated.

Then the thermostat is set back up to its normal temperature of 40 to 45 and is shut down manually so it will warm up. We have to get heat from somewhere, which is from the walls of the room, and it takes a while for it to warm up. After it is warmed up the temperature is above 40 and above freezing and it will defrost itself, and why add expense of defrosting when you have got the means already available?

By Mr. Neave:

Q. In your brine spray defrosting—I am not sure whether I asked you this question—you stated, I believe, that the brine was re-circulated? A. Yes.

Q. Now where did the brine go when it was caught in the pan? Did it stay there or did it go outside?

(Testimony of Joseph Reddington Chamberlain)

The Court: He testified to that. He said it would stay right in the room. Sometimes it didn't and sometimes it did.

The Witness: That is right. [1321]

By Mr. Neave:

Q. When it stayed right in the room it was subject to the below freezing temperatures of the room?

A. Correct.

Q. And why didn't it freeze then?

A. Because it had a sufficient amount of salt, it should have sufficient salt dissolved in it, to prevent it from freezing at that particular room temperature.

Q. Now will you state whether or not it is possible for the wall of a refrigerated space to be above freezing although the air of the space may be below freezing?

A. It is certainly possible.

Q. Why is that?

A. It is possible because insulation on the wall of a refrigerating room is a heat retarder, not a heat stopper. Therefore you can establish a temperature gradient through the wall, that is, the gradient is high on the outside, low on the inside, and that gradient, being the function of the installation, its condition, the thickness and what kind it is, can easily establish a temperature above freezing at the wall and still be maintaining a below freezing temperature within the room. That is, the skin or film right at the wall can be above freezing whereas in the middle of the room it can be below freezing.

The Court: You mean a thin layer of air immediately adjacent to the wall. [1322]

The Witness: Correct.

(Testimony of Joseph Reddington Chamberlain)

The Court: Or the wall itself?

The Witness: The wall itself or the air adjacent to that wall. You can assume it either way, because we are thinking about a very thin film, you might say.

The Court: What is your idea of very thin?

The Witness: Well, it depends on what we are talking about, sir.

The Court: You said a very thin film of air. That is what we are talking about.

The Witness. All right. I will say it is a quarter of an inch thick.

By Mr. Neave:

Q. What do you do to determine the grains of moisture in the air?

A. We measure the wet bulb and the dry bulb by means of instrument known as a psychrometer.

Q. What is that instrument?

A. That consists of a wet bulb and dry bulb thermometer located together, one of which is covered by a wick wet with water, the other one dry. Those two together are sometimes slung—in that case it is known as a sling psychrometer—or they can be placed in an area of a pipe where definite air velocity is blown over the two thermometer bulbs. [1323]

Q. What do you do with the readings from the psychrometer to determine the grains of moisture?

A. We refer to psychrometric tables, and once knowing the wet bulb and dry bulb the difference between the two is known as the wet bulb depression. Then there are psychrometric tables establishing grains of moisture per

(Testimony of Joseph Reddington Chamberlain)

cubic foot of air by means of wet and dry bulb temperatures.

Q. Does it make any difference as to what is the temperature of the air in determining the number of grains in the air?

A. It doesn't make any difference what the temperatures might become after the air has first been treated. That is to say, if we take a sample of air after it has been treated and after it has traveled for great distances and changed its temperature, it makes no difference in the reading because you have neither added nor subtracted moisture, but you will read a different temperature on the psychrometer.

Q. When you say it makes no difference in the reading, in the reading of what?

A. In the reading that you obtain from the tables in terms of grains of moisture per cubic foot.

Q. In order to get the grains of moisture contained in that air, you mean?

A. That is correct. As long as no grains of moisture have been added in transit. [1324]

Mr. Neave: I would like to have a form marked as Plaintiff's Exhibit 111.

(The document referred to was marked Plaintiff's Exhibit No. 111 for identification.)

By Mr. Neave:

Q. Mr. Chamberlain, what is the form, Plaintiff's Exhibit No. 111?

A. That is part of the standard York Corporation contract which is used on all jobs.

Mr. Neave: I call your Honor's attention to paragraph 7 which contains the guaranty form.

(Testimony of Joseph Reddington Chamberlain)

I would like to offer Plaintiff's Exhibits 108 through 111 inclusive in evidence.

Mr. Lewis Lyon: Your Honor, this last document referred to is obviously improper. There is no showing that it was ever used. It is merely a self-serving statement, merely the ordinary guarantee that anybody will stipulate to as to defective parts.

The Court: Under the California law they wouldn't need to put it into the contract.

Mr. Lewis Lyon: That is right.

The Court: It is part of the law anyhow.

Mr. Lewis Lyon: That is right.

The Court: I do not see how it is material, counsel.

Mr. Neave: I would like to have in the record show-[1325] ing that it is the established contract form of the York Corporation.

The Court: For what, just for that purpose?

Mr. Neave: Yes, sir.

The Court: Why is that material? That is a different guaranty that satisfaction guaranteed. That is a very broad order, I would think, satisfaction guaranteed.

Mr. Neave: That may go to the weight, your Honor. [1326]

Mr. Lewis Lyon: It goes to its materiality.

The Court: It is a different thing. Guarantees all machinery and materials against defects and workmanship.

Mr. Neave: It seems to me to be entirely a question of degree, your Honor.

(Testimony of Joseph Reddington Chamberlain)

The Court: Paragraph 10 has some modified form of guaranty. But I cannot see how it is material, counsel. Objection sustained.

The others are admitted.

(Plaintiff's Exhibits Nos. 108, 109, and 110 were received in evidence.)

[Note: Plaintiff's Exhibits Nos. 108, 109 and 110 will be found in the Book of Exhibits at pages 1313, 1314 and 1315.]

Mr. Neave: 111 is marked for identification?

The Court: Exhibit 11 is marked for identification.

By Mr. Neave:

Q. Did you hear Mr. Tuttle testify in this case?

A. Yes, sir.

Q. To your knowledge did York try out water defrosting years ago and find it didn't work?

A. Not to my knowledge.

Mr. Neave: That is all.

Mr. Lewis Lyon: I have very few questions, your Honor.

Cross Examination

By Mr. Lewis Lyon:

Q. In this hot brine or brine defrosting method using the brine on the outside of the coils as evidenced by the [1327] drawings which you have put in here as Exhibits 108, 109 and 110, those do not show all the equipment that is required, do they, for such an operation?

A. No, indeed.

Q. They don't show the pump? A. No.

(Testimony of Joseph Reddington Chamberlain)

Q. They don't show the concentration tank for maintaining brine concentration at the required degree of concentration, do they?

A. No, those drawings don't show that.

Q. They don't show the necessary use of some means of measuring at least at regular intervals the concentration of the brine as it is stored and recirculated through the holding or brine tank, do they? A. No.

Q. There is some such means required, isn't there?

A. Correct.

Q. It is usually a density measuring device, isn't it?

A. It is known as a hygrometer.

Q. In other words, to maintain that system in operation it requires an engineer in attendance who can understand the use of such instruments and can operate and maintain the concentration of the brine, doesn't it?

A. I wouldn't say that it requires an engineer. It requires an individual who can be taught sufficient to do the [1328] operation.

Q. And has to be in constant attendance?

A. Not necessarily in constant attendance.

Q. At least enough intermittent attendance so that the brine concentration doesn't change or the brine will freeze, isn't that correct?

A. Not necessarily so. In many cases salt in a mixing basket is placed right in the brine tank so that as he weakens the brine more and more salt is dissolved as the brine is circulated over the coils so that it doesn't need anybody to touch it.

(Testimony of Joseph Reddington Chamberlain)

Q. That is if he can stick a hunk of salt in the water and let the water dissolve the salt off.

A. He can let the water dissolve the salt as it is needed.

Q. And that salt that is added by that way doesn't have any corrosive action on any of the equipment, does it?

A. Not necessarily.

Q. Unless there are precautions taken to either coat the pipes with tar or something else, it must have a corrosive effect, doesn't it?

A. No, brine does not have a corrosive effect.

Q. Salt does not have a corrosive effect?

A. Not necessarily.

Q. Well, it does on this apparatus, doesn't it? [1329]

A. So does water, sir, and so does air. When you say "corrosive" you must be sure to say what type of corrosion you mean. There are lots of kinds. Some may be called electrolytic actions, and some may be the corrosion of intermolecular corrosion.

Q. The kind of corrosion I am talking about is the same kind of corrosion that you get on all metal surfaces when you take them down near the ocean and the salt water.

A. You are talking about rust.

Q. That is corrosion, isn't it?

A. Rust is a corrosion; yes.

Q. That is what I am talking about, and brine has the same corrosive effect as the salt sea water, doesn't it?

A. Yes, and so does water.

Q. But not to anywhere near the same degree.

A. That isn't necessarily true. It can vary a great deal with lots of conditions, sir.

(Testimony of Joseph Reddington Chamberlain)

The Court: Does the brine rust the pipes or not?

The Witness: Brine rusts the pipes.

The Court: All right. Does it rust those pipes that you use more than plain water does?

The Witness: Not necessarily so.

The Court: Does it?

The Witness: Sometimes yes and sometimes no, sir.

The Court: Do you use galvanized pipes? [1330]

The Witness: Yes, sir, hot dipped galvanized.

By Mr. Lewis Lyon:

Q. Did you ever actually measure the temperature of a coil of a Recold unit during water defrosting?

A. That is the first Recold unit I have ever seen. (Indicating) I have not.

Q. You never measured the coil temperature during defrosting of such a unit?

A. I have not. Wait a minute. I said of a Recold unit.

Q. That is right. A. All right.

Q. This solvent action of brine that you speak of on ice, isn't that merely the fact that you reduce the temperature of the water and that the salt doesn't dissolve ice, not in the ordinary sense of solution, does it?

A. I think I said it was the solvent action of salt on ice when it goes into solution with the ice by virtue of the fact that salt and water mixture reduces the freezing point of the mixture.

Q. It reduces the freezing point of the ultimate solution of water and salt, not of the ice, though?

A. And in doing so it dissolves ice.

(Testimony of Joseph Reddington Chamberlain)

Q. And in doing so it causes the ice to melt faster, is that not true? [1331]

A. It doesn't necessarily cause ice to melt, it dissolves the ice, takes it into solution. Melting ice is one thing, taking it into solution is another.

Q. You mean that the ice melts and the water runs into the other water, that that is what you mean by solution then? A. You can say it a great many ways.

Q. But that is what you mean?

A. But the fact is that salt will dissolve ice because it takes it into solution, and technically I think I am correct in that statement.

Q. It makes the ice melt and the water run into the rest of the water, is that what you mean?

A. No, I won't attest to that particular way of saying it.

Q. What is wrong with it?

A. Well, you are talking like we take ice in one hand and salt in the other and run them together and one runs into the other. I don't look at it that way.

The Court: What is the difference between melting and going into solution?

The Witness: Melting is a heat change process principally; going into solution may not necessarily mean any heat.

The Court: You mean when the ice melts and you put salt on it there is no heat?

The Witness: Yes, there is heat generated. [1332]

The Court: That is what makes the ice melt or go into solution?

The Witness: Either way.

(Testimony of Joseph Reddington Chamberlain)

The Court: It is the heat?

The Witness: Well, it could be said to be heat.

The Court: That is what melts ice, is heat?

The Witness: It can be dissolved.

The Court: What dissolves ice is heat, isn't it?

The Witness: No, I think you can do the same thing and have the thing exactly at the same temperature and never change the temperature, or have it at a lower temperature and do the same thing.

The Court: You mean you can have ice below 32 degrees—

The Witness: Yes, sir.

The Court: —and dissolve it?

The Witness: Yes, sir.

The Court: With salt?

The Witness: With salt, sir.

Mr. Lewis Lyon: Without melting it?

The Court: Without melting it?

The Witness: It disappears. You melt it. If you want to say you no longer have ice, you certainly say it melted it.

Mr. Lewis Lyon: It has given up its heat of fusion?

The Witnesses: It has. [1333]

Mr. Lewis Lyon: So it is no longer ice?

The Witness: Correct.

Mr. Lewis Lyon: That is all.

Mr. Neave: That is all, Mr. Chamberlain.

The Court: I want to ask a question.

A while ago counsel asked you what percentage of your units were water defrosting units and you said about 11 per cent.

(Testimony of Joseph Reddington Chamberlain)

The Witness: Yes, sir.

The Court: I have forgotten since when.

The Witness: 1940.

The Court: Why didn't you sell water defrosting units before then?

The Witness: We had these other means of defrosting which I just discussed which were at that time perfectly satisfactory.

The Court: If they were satisfactory why do you sell the water defrosting?

The Witness: Water defrost jobs are used in our case on installation of the smaller variety where these other facilities are not available. For example, we couldn't use air, even on a small job, if the duct work may become too expensive, nor could we use brine on a small job. We could, but it may be more expensive than water.

The Court: It would be more expensive to install and to [1334] operate?

The Witness: It may be.

The Court: So that the water has the advantage of being less expensive?

The Witness: On the other hand, on a job having more than one evaporator, even though it may be a small job, the less expensive way to do the job is hot gas. But again we have to have some source of heat. In the case of a job with one evaporator and one compressor, then that would be where we would almost be forced to use water.

The Court: To what do you attribute the increase in the use of the water method of defrosting?

(Testimony of Joseph Reddington Chamberlain)

The Witness: I don't quite get your question, your Honor.

The Court: Well, since 1940, 11 per cent of your sales have been water defrost type. To what do you attribute that increase in demand?

The Witness: To more smaller installations. Rather than build the large warehouse facilities, which incidentally have become quite loaded to capacity, more and more people are building these smaller plants to take care of their own products. [1335]

The Court: So that water defrosting is less expensive and less bother and more convenient for the smaller plants?

The Witness: For the smaller plants, yes, sir.

The Court: I mean, is that the reason?

The Witness: That is the reason.

The Court: That is what you attribute it to?

The Witness: Yes, sir.

The Court: All right. But it isn't any more successful now than it was before; is that your position?

The Witness: I think that is, sir.

The Court: It is. All right.

Mr. Neave: That is all.

The Court: We will have a short recess.

Mr. Neave: May it please your Honor, that concludes the witnesses that the plaintiff has in this case. I would like to offer now a copy of the file history of the McAdam patent No. 2,219,393 as Plaintiff's Exhibit—

The Court: No. 112?

Mr. Neave: —112.

The Court: Yes. I have been thinking over Exhibit 111, and I think I will reverse my ruling and admit Exhibit 111.

Mr. Neave: Very well, sir.

(The documents referred to were marked as Plaintiff's Exhibits Nos. 111 and 112, and were received in evidence.) [1336]

[Note: Plaintiff's Exhibits Nos. 111 and 112 will be found in the Book of Exhibits at pages 1317 and 1324.]

Mr. Neave: And I offer a book the patents cited in the McAdam file history as Plaintiff's Exhibit 113.

The Court: That is the same book of prior art, which you made available?

Mr. Neave: No, sir. These are the patents that were cited by the Patent Office during the prosecution of the McAdam patent, and they are all different.

The Court: All right.

Mr. Lewis Lyon: None of those are pleaded, however?

Mr. Neave: That is correct.

Mr. Lewis Lyon: They are in there to show the state of the art?

Mr. Neave: Yes.

(The document referred to was marked as Plaintiff's Exhibit No. 113, and was received in evidence.)

[Note: Plaintiff's Exhibit No. 113 will be found in the Book of Exhibits at page 1441.]

The Court: I would like to ask the last witness another question.

JOSEPH REDDINGTON CHAMBERLAIN,

recalled by the Court, having been previously sworn, testified further as follows:

By the Court:

Q. Mr. Chamberlain, in connection with the installation of the water defrosting method, have you installed any water defrosting method in any larger plant than what you call a small plant? I don't know what you mean by "small" or [1337] "large." What is the largest room that you have refrigerated by one of your machines with water defrosting?

A. The largest one that I am aware of, your Honor, is a room about this size, sold to the armed forces under specifications for water defrosting. That was exclusive of the numbers that I mentioned that we had sold.

The Court: Oh, that was in addition to the 11 per cent—
A. Yes, sir.

The Court: —that you had sold? A. Yes, sir.

Q. Where was that? A. To the armed forces.

Q. Where was it installed?

A. Oh, there is one installation at Camp Devens near Boston that I have personally seen, and there is another very close to Boston. I haven't seen that one.

Q. What kind of a machine did you put in? What type? What is your number on it, or do you have a number? Was it a special built machine?

A. No, sir, it was the same apparatus that we use for brine defrosting, the same headers and pan.

Q. Was it your F. B. 1400?

A. No, it wasn't. It was a later model, what is called our "IWB" meaning—or, not "IWB" but "IDB," mean-

(Testimony of Joseph Reddington Chamberlain)

ing industrial dry coil unit, which is the modern edition of that. [1338]

Q. How many feet of refrigerating coil?

A. The IDB comes in about four sizes.

Q. Well, which one in this room that we are talking about?

A. Oh, there were a couple or three in that room.

Q. Three of what size?

A. They were 126, which was about the size of this No. 1400.

Q. About 1400 feet of refrigerating coil?

A. Yes, sir.

Q. With the aluminum fins?

A. No sir, bare coil.

Q. Bare coil? A. Yes, sir.

Q. No fins? A. No fins.

Q. Are your units installed with fins?

A. Sometimes, and sometimes bare. It is a matter of economics in our particular shop. Pipe is cheap. It calls for a lot of weight, but it is a matter of balancing one thing against the other, to come out with the most economical job.

Q. Do you know how you happened to install this particular type of equipment in the Camp Devens job, and in the other job?

A. It was specified, sir. [1339]

Q. It was specified by the Army? A. Yes, sir.

Q. Did you have to do with the design and manufacture of the portable units that are mentioned in the stipulation here, that were manufactured by York for the Army? A. For the Army?

(Testimony of Joseph Reddington Chamberlain)

Q. Yes.

A. No, sir, I did not have anything specific to do with it. I was in a supervisory capacity, however, when they were built, and I was aware of what was being done.

Q. Well, do you know how you happened to build the water defrosting type for the Army?

A. The Army requested it.

Q. They requested it? A. Yes.

Q. Well, I have been around a little bit, and I know the Army just doesn't request things out of the air. Somebody gives them a sales talk, and they make inquiries, and they have purchasing agents who have millions of catalogues and information, and so forth.

A. That is correct.

Q. Was there any discussion between you and the Army— A. You mean with me personally?

Q. Yes. A. Not with me. [1340]

Q. Or with your department?

A. With my department there was discussion. These units illustrated in one of the defendant's exhibits, that picture—

Q. Yes. A. —of the plug type unit—

Q. Yes.

A. —had been established, I don't know whether it was with the Marine Corps or the Quartermaster, but they both used them and they had standardized on that type of unit, and in order to secure them a great many people, that is, manufacturing concerns, built them, we being among them. We built an edition of that particular type of apparatus, you might say.

(Testimony of Joseph Reddington Chamberlain)

Q. In view of your experience, do you think that your dry gas or your gas method would have been better?

A. In that particular installation I would say that the water would probably be the most satisfactory means.

Q. By Mr. Neave: Which installation do you mean?

A. I mean the Marine Corps or Quartermaster.

Q. By the Court: The one that is illustrated by one of the defendant's exhibits?

A. That particular unit, however, was soon found to be inadequate and was replaced by an entirely different type of apparatus. It was not sufficiently maneuverable with the [1341] speed at which the Army moved. The theory was that they could set up these cold stores back about the second echelon from the line, and as the forces moved they could move the refrigerating plant. The idea was that they had a unit they plugged into— The unit was complete and had the low side on one side of the plug and the high side on the other. However, it was soon found that refrigerated trucks which used air condensers and plate evaporators were better for their use, and in that way they could move this food as the Armed Forces advanced. We didn't build too many of these ourselves.

The Court: I haven't any further questions.

Q. By Mr. Neave: Do you know whether or not the York Corporation initiated the water defrosting system with the Army and the Navy?

A. I do not know.

Mr. Neave: That is all.

The Court: Any cross?

Mr. Lewis Lyon: No cross.

The Court: Very well. That is all.

(Witness excused.)

Mr. Neave: I would like to offer in evidence as Plaintiff's Exhibit 114 a photostatic copy of the notice of infringement which was received by the York Corporation from Mr. Lyon, and which is dated January 5, 1944. [1342]

The Court: Admitted.

(The document referred to was marked as Plaintiff's Exhibit No. 114, and was received in evidence.)

[Note: Plaintiff's Exhibit No. 114 will be found in the Book of Exhibits at page 1481.]

Mr. Neave: At this time I would like to move to amend our complaint to add the following:

"Defendant is barred from the relief sought in the McAdam patent because it has misused the patent in an effort to control competition on unpatented devices."

This will form the basis of argument on law that we will make.

The Court: Where do you want to add that?

Mr. Neave: That can be added anywhere in the complaint, your Honor.

The Court: Well, it is your complaint.

Mr. Neave: I haven't got it before me. May I see the court's copy?

(The document referred to was handed to counsel.)

Mr. Neave: As Paragraph IX.

The Court: That motion is made to conform with the proof?

Mr. Neave: That is true.

Mr. Lewis Lyon: What proof?

The Court: The motion is denied.

Mr. Neave: The proof—

The Court: Go ahead. [1343]

Mr. Neave: The proof has come to light here, your Honor, in the testimony of Mr. Jarvis. He testified that the defendant company sold only the unit. He also testified that they did not install the unit, and that they did not sell the conduits from the unit to the valve and connecting the unit with the outside.

Mr. Doble has testified that all of the parts of the patent combination were in and of themselves old, and your Honor will recall his “but”, his “but” being that they were used—

The Court: In combination.

Mr. Neave: —in combination. He made it very clear that the invention of the patent was the combination. It is, therefore clear that the defendant company is not selling the patented combination.

Mr. Jarvis also testified that he, his company, never sued any manufacturer who purchased the devices from his company. He also testified that he never sued the York Company when they purchased these unpatented devices from his company. He further testified that he had sued other companies who had sold devices, that is, these unpatented devices that were purchased from somebody else, and this suit contains a counter-claim against this plaintiff for sale of a unit which was not bought from the defendant company.

Therefore, your Honor, we are going to make the legal [1344] argument from that proof that the plaintiff has misused the patent, in that it is trying to force people to purchase from it the unpatented devices, that is, the devices which are less than the entire combination.

That is the argument, and that law has been laid down in the case of *Mercoide v. Mid-Continent* in 360 U. S.—

Mr. O'Hearn: 320.

Mr. Neave: —320 U. S. 661, and I think at 660. There are two cases, your Honor.

I renew my motion.

Mr. Lewis Lyon: I oppose the motion on the same ground. The evidence clearly shows that perhaps we are selling less than we are entitled to under the combination and giving a license to use the rest of it. We certainly don't control the sale of pipes or valves, or anything like that, and we let them use that. But there is clearly no misuse of the patent under such circumstances. We are not requiring anybody to buy unpatented devices from us, and we are selling them for use with directions how to use them.

Mr. Neave: We will show your Honor that the facts in this case are almost identical with the facts in the *Mercoide* case, which, of course, is a question of argument.

Mr. Lewis Lyon: They are not. They are not even comparable.

The Court: Let me see the *Mercoide* case. 316, is it? [1345]

Mr. Neave: I have a copy of it.

The Court: I will have the bailiff get my copy.

Mr. Neave: 360 U. S.

The Court: 360?

Mr. Neave: No. Now, let me see. I only have the citation in this patent quarterly, your Honor, with me.

The Court: Doesn't it give the Supreme Court citation?

Mr. Neave: No, I don't think it does. This comes out before the Supreme Court.

The Court: You gave the U. S. citation?

Mr. Neave: I did, but I think I must be wrong. My note says "360," but I don't think we are up that high.

The Court: I think you cited that here in your pre-trial memorandum.

Mr. Neave: I think it is cited on another point.

The Court: Yes. 320 U. S., Mr. Bailiff.

Mr. Charles Lyon: 320 U. S., 661.

Mr. Neave: The portion contained in that brief, your Honor, of course, is on a different point.

The Court: Yes, I understand. [1346]

Mr. Neave: I also want to bring to your Honor's attention that all of the claims in suit in the patent start out with the words "in combination with a refrigerated space."

Now Mr. Doble testified very clearly that that was an important element of the claim, because that imparted into the claim the temperatures that were a part of McAdam's invention.

The defendant here does not sell the refrigerated space. He does not use it either. In order for the patented device to be the patented device it has got to have all of the elements of the claim.

Mr. Lewis Lyon: You stipulated to such a use by your very stipulation.

Mr. Neave: No, sir. It doesn't stipulate that we sold the space. It has got nothing to do with what you do.

The Court: I do not think the case is similar.

Mr. Neave: May I point out, your Honor, portions of this?

The Court: All right.

Mr. Neave: In the third paragraph of Mr. Justice Douglas' opinion, he says:

"The patent is a combination or system patent, covering a domestic heating system which comprises three main elements—a motor-driven stoker for feeding fuel to the combustion chamber of a furnace, [1347] a room thermostat for controlling the feeding of fuel, and a combustion stoker switch to prevent extinguishment of the fire."

In other words, there are three elements. There is the stoker, the thermostat and the switch.

Now skipping to the next paragraph:

"Mercoid, like Mid-Continent and Minneapolis-Honeywell, does not sell or install the Cross heating system. But the Circuit Court of Appeals found that Mercoid manufactured and sold combustion stoker switches for use in the Cross combination patent."

In other words, they sold one of these elements. This suit was brought, by the way, for contributory infringement, that is, for selling less than the entire combination.

Mr. Lewis Lyon: That is the distinction.

Mr. Neave: Then in the next paragraph there is some discussion of this and in the following paragraph, about three quarters of the way down the page, it says:

"The method by which the monopoly is sought to be extended is immaterial. (Citing case) The patent is a privilege. But it is a privilege which is conditioned by a public purpose."

I quoted that in my brief.

The following paragraph begins:

"The instant case is a graphic illustration of [1348] the evils of an expansion of the patent monopoly by private engagements. The patent in question embraces furnace assemblies which neither the patentee nor the licensee makes or vends."

Now that is exactly the situation here, that the patentee, the owner of the patent, doesn't make or vend the entire combination.

The Court: Does anybody?

Mr. Neave: It is perfectly possible that somebody may. He ought to sue a user then, your Honor.

The Court: They use steel in a great many patented commodities, do they not?

Mr. Neave: That is true.

The Court: This little clip machine, for instance.

Mr. Neave: That is true.

The Court: Do they make the steel? Do they dig the ore out of the ground?

Mr. Neave: No, but it depends on what the invention is. The invention here is the combination of all of the elements, and Mr. Doble has said that in no uncertain terms.

The Court: But the point in this case was, as they pointed out over here, "The owner of a patent may not employ it to secure a limited monopoly on an unpatented material used in applying the invention."

Mr. Neave: That is exactly the situation here. [1349]

The Court: Now he isn't trying to get here—that is, the evidence doesn't show at least so far—that he is trying to get a limited monopoly on a stop-and-waste valve.

Mr. Neave: Yes, sir, that is exactly what it shows.

The Court: Not according to my understanding of the claims of the patent and the argument of the patentee's counsel. So far as the stop-and-waste valve is concerned, you do not have to have to have it. It can be manually operated, as they stated, by turning one on and turning the other off.

Mr. Neave: That is right. Any valve will do it.

The Court: Any valve will.

Mr. Neave: That is right. And the claim calls for a valve.

The Court: But they are trying to get a limited monopoly on all the stop-and-waste valves, is that it?

Mr. Neave: No, that isn't necessary, your Honor. What they are trying to do is to get people to buy from them something that is unpatented, by the leverage of their patent. The thing that they sell is not the entire combination. They sell only a part of it, just as in this case the patent owner only sold the switch. He didn't sell the whole combination. By bringing suit against people who don't buy from them this unpatented combination and by not bringing suit against those that do buy from them the unpatented combination they are using their patent as a lever. They are holding out and saying to [1350] their purchasers of this unpatented unit, "If you buy this from me you will get an implied license for

every unit that you buy from me and you can use it in this combination.” As has just been said, they give instructions so that you can do it. So that the man who buys from them will have the benefit of an implied license. That is a commercial advantage that they hold out: “We have got the patent, and if you buy this unpatented combination from us you will get an implied license. If you don’t buy it from us I am going to sue you.”

The Court: I am going to sue you if you use it.

Mr. Neave: If you make it and sell it, or if you sell this unpatented combination.

The Court: If you make it and sell it.

Mr. Neave: That is right.

The Court: I thought that is what a patent is for, to give a man a right to sue people who make the thing that he had patented.

Mr. Neave: But this is not the thing he patented.

The Court: The combination is.

Mr. Neave: Because the combination that he patented includes all of these elements, and he doesn’t sell all of the elements. That is the whole point that I am making. I am not trying to persuade your Honor here as to the applicability as to the rule of law; I am just saying I ought to be allowed to make my amendment in view of this evidence. [1351]

The Court: I do not think so, not at this late stage of the game. The motion is denied.

Mr. Neave: Your Honor, it is the only time that I could make it. We didn’t have the evidence before us

before, and how can I bring up this point in the court of appeals if your Honor will not let me make it? I am making this motion at the time when the plaintiff—

The Court: You are making this motion now and after a trial of seven days. The case has been set for trial for some time. There was a great urgency to get the case tried and I set another case aside to try this case so that we could proceed to trial and have these rights litigated.

Now at the conclusion of your case, at the conclusion of both sides except for any rebuttal that might be offered, there is a warning to the other side for the first time that you are going to claim misuse of the patent and invalidity on that ground or whatever consequence flows from that.

Mr. Neave: That is right. -

The Court: So in the exercise of the discretion which is certainly allowed in the matter of allowing amendments to pleadings, I should say that that would be an abuse of discretion now, particularly in view of the fact that you have been in possession of the information upon which you now rely ever since the close of the defendant's testimony which was put on first in this case. [1352]

Mr. Neave: That is true, your Honor.

The Court: So you could have made your motion, which would have been more timely than now. It is now untimely, in the first place, and on that ground I deny it, and on the additional ground that I do not believe the evidence shows, and your motion is made to conform the pleadings to the proof.

Mr. Neave: That is correct.

The Court: So your motion is denied.

Mr. Neave: May I point out two matters to your Honor? One is that the defendant here has not pleaded surprise, has not said that he is surprised by this motion.

The Court: I haven't given him a chance to talk yet. I do not know whether he is or not.

Mr. Neave: Secondly, that the motion is being made now before the defendant's rebuttal case so that it will have plenty of time to meet any such issue.

The Court: Plenty of time to prepare on the matter?

Mr. Neave: Yes.

The Court: Do you mean between now and 2:00 o'clock?

Mr. Neave: Certainly.

The Court: When all of the parties have been warned at the commencement of this case that I had to finish it this week, that I cannot displace the criminal calendar which I must begin to try next Monday?

Mr. Neave: Well, your Honor, I think that litigants, [1353] particularly in a situation like this, where counsel are very experienced on the other side, know what is going on when questions of the character that I asked of the witness Jarvis were answered, so that I do not think that there is any surprise, and it seems to me that with the vice president and manager of the corporation here they could put on plenty of evidence at short notice if they wanted to. I don't think that there is any surprise.

The Court: I don't know what evidence it is. In any event, you can have the matter reviewed. You can take it up as one of your grounds to the circuit court, who will examine my judicial discretion and see how badly it was abused, if it was.

In any event, the motion is denied.

Mr. Neave: I have an exception automatically, I assume.

The Court: Automatically, and if you haven't one automatically you have one now anyway.

Mr. Neave: Thank you.

The plaintiff rests.

Mr. Lewis Lyon: Do you want the rebuttal to start now at 4 minutes to 12:00, your Honor?

The Court: How long will you be? Will you finish this afternoon?

Mr. Lewis Lyon: I will finish this afternoon; yes, your Honor. [1354]

The Court: All right. Then we will figure on argument tomorrow, unless counsel has surrebuttal or redirect examination, or whatever you might call it.

Mr. Neave: We don't know yet.

The Court: We will finish all of the testimony this afternoon and figure on arguing the case tomorrow.

Mr. Neave: Very well, your Honor.

The Court: 2:00 o'clock.

(Whereupon, at 12:00 o'clock noon, a recess was taken until 2:00 o'clock p. m. of the same date.) [1355]

Los Angeles, California, Thursday, September 26, 1946,
2:00 P. M.

The Court: Mr. Lyon?

Mr. Lewis Lyon: Your Honor, I would like to first get into the record the dimensions of this room. As I stepped them off, it is somewhere around 45 to 70.

The Court: You can get them accurately from the custodian of the buliding.

You know where his office is, Mr. Bailiff. Will you go down and ask him if he has the plans to show the accurate dimensions?

Mr. Lyon: Thank you. While we are waiting for that, your Honor, we will call Mr. Wilde.

CARL E. WILDE,

called as a witness by and on behalf of the defendant, having been first duly sworn, was examined and testified as follows:

Direct Examination

The Clerk: Your name, sir?

The Witness: Carl E. Wilde.

The Clerk: And your address?

The Witness: 10009 Orange Avenue, South Gate.

The Clerk: Take the stand.

Mr. Neave: What town was that?

The Court: South Gate. South Gate, California. [1357]

By Mr. Lewis Lyon:

Q. What is your occupation now, Mr. Wilde?

A. Public accountant.

(Testimony of Carl E. Wilde)

Q. What was your occupation in the latter part of 1939?

A. I was sales manager, selling commercial refrigeration and air conditioning in San Diego in the latter part of '39.

Q. Were you at any time connected with the R. W. Weidlein Company?

A. Yes, sir, from May, 1941, until April, 1943.

Q. Did you at any time occupy the position of co-receiver for the R. W. Weidlein Company?

A. Yes, sir.

Q. When was that?

A. That was between May and the latter part of September, '41.

Q. What was the business of the R. W. Weidlein Company?

A. Retailing commercial refrigeration.

Q. Who was the other co-receiver for the R. W. Weidlein Company at that time?

A. Mr. R. W. Weidlein himself.

Q. Any one else?

A. No, sir.

Q. Are you acquainted with Mr. W. C. Hulse?

A. Yes, sir.

Q. Where did you meet Mr. Hulse? [1358]

A. I met him first at the Weidlein Company.

Q. Did you ever have any conversation with Mr. Hulse while you were receiver for the Weidlein Company with respect to the subject of water defrosting of Recold coils?

A. Yes, sir.

Q. Who else was present?

A. I don't know as anybody in particular was present, that I can remember of, at the time, because we had

(Testimony of Carl E. Wilde)

several discussions about that; in fact, a good many of them.

Q. Did Mr. Hulse have any duties with respect to the Weidlein Company while it was in receivership?

A. I don't just get your question there.

Q. Was he a representative of any company, any creditor company, of the R. W. Weidlein Company, while it was in receivership?

A. Yes, he was the representative for the Koch Case Company, and he was on the creditors' committee.

Q. Can you fix more accurately the date of this conversation with Mr. Hulse concerning the subject of water defrosting?

A. Not the exact date, but it was the latter part of the year of '41, when I was there full time. At the time I was co-receiver, I was there only just occasionally to sign checks with Mr. Weidlein and watch that the salesmen didn't receive too many advances. Approximately the latter part of [1359] September I was there in full charge as manager, and in those times I had many discussions with him, because I was there all day long. [1360]

The Court: The Treasury Department, Procurement Division, drawing of United States Post Office and Court House, second floor, drawing No. AS-5, showing courtroom No. 3—I do not think it gives the dimensions here. It shows 2120 square feet but it does not give the height.

Mr. Lewis Lyon: Are the dimensions given on that drawing, the length and the width of the room?

The Court: No, it doesn't seem to give it. I do not see any scale here. They must have another map down there with a scale drawing.

Mr. Bailiff, will you ask them?

(Testimony of Carl E. Wilde)

The Bailiff: Yes, your Honor.

The Court: Also something which will show the height of the room.

Go ahead. This is a conversation with Hulse in 1941?

The Witness: That is correct.

By Mr. Lewis Lyon:

Q. Can you state what Mr. Hulse said to you concerning water defrosting at that conversation, Mr. Wilde?

A. Yes, sir.

Mr. Neave: Just a minute. What is the purpose of this testimony, Mr. Lyon?

Mr. Lyon: Impeachment.

Mr. Neave: Is that the only purpose?

Mr. Lyon: No. The other is to show the fact of an [1361] adandoned experiment.

Mr. Neave: I object to anything other than impeachment, your Honor, because otherwise it is hearsay testimony. If Mr. Lyon is trying to prove a fact other than the conversation through what somebody else said it is hearsay. If he is just trying to prove something that was said to impeach a witness of mine, that is proper.

The Court: I think the testimony is admissible. No objection was made as to the form of the question.

Mr. Neave: I don't object to the form of the question. I would object to it as a whole if it were for the purpose of anything other than impeachment of the witness, as then it would be hearsay.

Mr. Charles Lyon: On that point, your Honor, I have some authorities I would like to quote to the court.

(Testimony of Carl E. Wilde)

The Ninth Circuit of Appeals, in *Lindblom v. Rocks*, 146 Fed. 660, at 664, stated:

“In brief, the whole proof of the purpose of the defendant in error to leave the property without the intention to return consists in the words which she is said to have uttered to Tronsen and the fact that she went away from Nome. It is too plain to require discussion that where a defendant in such an action as this, relies upon the words of the former possessor to show an intention to abandon, the burden of [1362] proof is upon him to prove that the words were spoken, and that in the absence of facts sufficient to shift the burden of proof, it must always rest upon him who asserts the abandonment.”

That case merely holds of course by implication that you can prove the declarations.

The California law is quite clear also. In *Willson v. Asaph Cleveland*, 30 Cal. 192 at 203, the court stated:

“Upon a question of abandonment, as on a question of fraud, a wide range should be allowed, for it is generally only from facts and circumstances that the truth is to be discovered, and both parties should be allowed to prove any facts or circumstance from which any aid for the solution of the question can be derived.”

In *Turner v. Markham*, 155 Cal. 562 at 572, the court said:

“Was the agreement abandoned? Abandonment is governed by intent, and the intention to abandon must be established by declaration or by conduct.”

(Testimony of Carl E. Wilde)

In 31 Corpus Juris Secundum, Evidence, Section 256, we find the following statement:

“Where declarant’s intent or intention is relevant, his declarations disclosing such intent or intention are admissible.”

I don’t believe I need read any more of these, but we [1363] have the case of *Stromerson v. Averill*, 38 Cal. App. (2d), 118, at 125 and 126; *O’Dea v. Hibernia Savings and Loan Society*, 119 Cal. App., 622 at 624.

It seems to me quite clear, your Honor, that when you are trying to prove the intention that a person had when they performed an act, his declarations as to why he performed the act or with what intention he performed the act are clearly admissible, it not being hearsay in the first place and, in the second place, if it is it is a well established exception to the rule.

Mr. Neave: Your Honor, I don’t think that those references are at all pertinent here. The intention of Mr. Hulse doesn’t enter into it at all. Mr. Hulse was a man who put in the installation. At the time he left the company he was working with, the installation belonged to somebody else. If it was abandoned it was abandoned by somebody else and not by Mr. Hulse or the company he was working for.

Now what this witness may have to say with respect to what somebody else told him and then try to use that to prove whether or not this thing was an abandoned experiment or worked satisfactorily or didn’t work satisfactorily, is just pure hearsay. If it is purely for the purpose of impeachment—

(Testimony of Carl E. Wilde)

The Court: I think the testimony is admissible. I think it is admissible for impeachment purposes, and if it is [1364] admissible for impeachment purposes it is admissible to prove the thing that was sought to be proved by the testimony which is sought to be impeached.

Mr. Neave: I have to disagree with your Honor on that because then it is trying to prove the fact, like the fact of operation, by hearsay testimony.

Now the testimony that Mr. Hulse gave was of his own direct knowledge. If it goes beyond impeachment then it is pure hearsay.

The Court: It is impeachment and rebuttal.

Mr. Neave: It may be rebuttal, but it is improper rebuttal. That is, it is improper testimony because it is hearsay testimony as far as any proof tending to show what happened to that operation.

The Court: We will argue as to what has been proved or hasn't been proved later. In the meantime, your objection is overruled.

Mr. Neave: May I have an exception?

The Court: Exception noted.

Mr. Lewis Lyon: Will you read the question.

(The question referred to was read by the reporter, as follows:

“Q. Can you state what Mr. Hulse said to you concerning water defrosting at that conversation, Mr. Wilde?”)

The Witness: Yes. At this time Mr. Hulse, being on the [1365] creditors' committee, was helping or trying help make sales for the Weidlein Company, and we had a particular job going through this with some chipped

(Testimony of Carl E. Wilde)

beef concern in which we had taken back a small water defrost freezer, and we were in preparation of plans to install a larger plant, and Mr. Hulse, trying to convince me to change my mind about a water defrost coil and put some other type of defroster in there—

The Court: What he said, not the effect of his conversation.

The Witness: He said this to me.

The Court: Said what?

The Witness: Not to put in the water defrost coil because they were not satisfactory, because he himself had experimented with it. He had put the first job in when he was in Portland and it never worked satisfactorily, and he had had the best engineers in the world and still it wouldn't produce the results.

However, I was the manager of the place, could do as I wished, and I determined that a defrost coil would go in because it was satisfactory from my past experience that it was.

Mr. Lewis Lyon: That is all. [1366]

Mr. Lewis Lyon: That is all.

The Court: Cross-examine.

Cross Examination

By Mr. Neave:

Q. Mr. Wilde, just what was the date of this conversation? A. Sometime the latter part of 1941.

Q. In what month was it?

A. Oh, it could be October or November, along in there.

(Testimony of Carl E. Wilde)

Q. Which month was it?

A. Well, now, I couldn't state the exact date. I said the latter part of 1941. I could dig up the old records and see when this job was being installed and produce the approximate date.

Q. You haven't dug up those records?

A. Well, I haven't. The Weidlein Company is extinct today, has been for a couple of years.

Q. Now, what was this unit that wasn't operating properly? What make was it?

A. The unit that he put in. Now, I don't know what unit it was, but he had put in the unit, and I believe he said he was working for Carrier at the time.

Q. The unit you said was all right, was that a Carrier unit? A. No, sir, that was a Recold. [1367]

Q. I can't hear you.

A. That was a Recold unit.

Q. That was the unit that wasn't operating satisfactorily? A. No, sir, that unit worked swell.

Q. Worked well? A. Yes, sir.

Q. Mr. Wilde, I thought I understood you to say that you were talking about a unit that you had taken out that didn't work satisfactorily.

A. That isn't what I said. I said we took out a unit because the man's business had increased and he needed a larger box.

Q. What unit were you thinking of putting in in the larger installation? A. Recold coil.

Mr. Neave: I see. That is all.

Mr. Lewis Lyon: That is all.

The Court: Step down. The next witness.

Mr. Lewis Lyon: Mr. Niel Dahl. [1368]

NIEL DAHL,

called as a witness by and on behalf of the defendant, having been first duly sworn, was examined and testified as follows:

Direct Examination

The Clerk: State your name, please.

The Witness: Niel Dahl.

The Clerk: Is that N-e-a-l?

The Witness: N-i-e-l.

The Clerk: And your address?

The Witness: 725 Magnolia Avenue, Long Beach.

The Clerk: Take the stand.

By Mr. Lewis Lyon:

Q. Were you at any time employed by the Electrical Products, Consolidated, at Seattle, Mr. Dahl?

A. I was.

Q. What was your capacity with that company?

A. I was manager and chief engineer.

Q. During what period of time?

A. From January 1, 1936, until September of 1937.

Q. Were you at any later date employed by the Electrical Products Corporation? A. No, sir.

Q. Were you at any time during such employment acquainted with Mr. W. C. Hulse?

A. Yes. I hired him and put him to work for the [1369] Electrical Products Corporation.

Q. When did you hire Mr. Hulse?

A. Approximately the first of April, 1936.

Q. At what time did Mr. Hulse leave the employment of Electrical Products Corporation?

A. Approximately March, of 1937.

(Testimony of Niel Dahl)

Q. At what time, to your knowledge, did Mr. Hulse leave the employment of Electrical Products Corporation at its Portland division?

A. Approximately two weeks previous.

Q. Was Mr. Hulse responsible to you? Was he subordinate to you in that organization?

A. That is correct.

Q. Had Mr. Hulse, prior to the time of your employment of him for Electrical Products Corporation, had any experience in refrigeration, to your knowledge?

A. Not to my knowledge, in commercial refrigeration. He may have had some nominal experience with household boxes.

Q. Were you the officer of the Electrical Products Consolidated that set up the Portland office of that concern?

A. I was not an officer of the corporation. I was the manager of the air-conditioning-refrigeration division, but I was responsible for and in active charge of the setting up of the Portland air-conditioning-refrigeration organization.

Q. Was that Portland branch discontinued during the year [1370] 1937?

A. It was.

Q. Why?

A. Many reasons. I had determined to liquidate the business due to large losses that occurred on many jobs. Our service, due to lack of sufficient trained personnel, was becoming excessive. For many other reasons it was determined to liquidate the business and the Portland office was closed approximately August 1, of 1937.

(Testimony of Niel Dahl)

Q. Did you keep track of what was going on through the Portland office during the time that it was maintained?

A. Very definitely.

Q. Were you responsible to the corporation for the operation of that branch? A. I was.

Q. During the operation of that branch, were you acquainted with the installation made by Electrical Products Corporation for Trullinger & Eustice at Yamhill, Oregon? A. I was.

Q. Did you visit that plant? A. I did.

Q. Were you familiar during that time with the attempts made to defrost the system through the use of water?

A. I was. At a later—I was not familiar with it to start with, because I was on an extended trip in Montana, [1371] but I soon became aware of it upon my return from that trip.

Q. How did you become aware of it?

A. I periodically visited the Portland office, as well as several other offices, and by monthly reports from my accounting office, an analysis of the service costs, job costs, and so forth. That and several other jobs were brought to my attention as having run over and actually showed a loss.

Q. A loss occasioned by what, Mr. Dahl?

A. Primarily extensive service.

The Court: You mean, after installation?

The Witness: Yes, sir.

(Testimony of Niel Dahl)

Q. By Mr. Lewis Lyon: Did that continue throughout Electrical Products Corporation's servicing—I mean, knowledge of the operation of that structure?

A. Yes, it continued for several months; just how far, I do not recall.

Q. Just how serious were the service charges against that Trullinger & Eustice operation?

A. Well, I do know that we not only lost our anticipated profit, but actually the job cost us money.

Q. Do you know what kind of a unit—

The Court: What was wrong with it? Anything?

The Witness: Yes, sir.

The Court: Well, what was it?

The Witness: Continual defrosting problems. [1372]

The Court: Continual defrosting—

The Witness: Yes, sir, continual problems of defrosting.

The Court: Was that after water defrosting was installed, or before?

The Witness: Before and after.

The Court: Do you know how long the gas defrosting was in?

The Witness: I cannot place the date. I would judge for two—possibly two months.

The Court: And then it was taken out and the water put in?

The Witness: Yes, sir.

The Court: After that you still had trouble—

The Witness: Yes, sir.

The Court: —with the water defrosting?

The Witness: Yes, sir.

The Court: What trouble?

(Testimony of Niel Dahl)

The Witness: Well, the trouble basically was that the coil, due to the distribution system of water, and the construction of the coil would not satisfactorily de-ice. There was ice even though the top of the coil was free of ice and visual inspection would indicate that it was defrosted, ice in large blocks would form on the lower side of the coil, where the water could not impinge upon it in the form of icicles, heavy glazed ice. [1373]

The Court: What did you do about it?

The Witness: There was not much to do.

The Court: I mean, did you leave the water on longer or—

The Witness: That would be one possibility.

The Court: Well, did you do that?

The Witness: I did not, no, sir.

The Court: I mean, did you order that done, or have it done, or see that it was done?

The Witness: No, sir.

The Court: Or did somebody under you do it or do you know whether or not it was done?

The Witness: They had experimented with this job for some period of time before I became aware of the change.

The Court: Yes.

The Witness: This change was not made on my authority. The Portland office had a certain amount of authority of its own to proceed. I was only there intermittently. I could not control the details on each and every job, but this attempt with water defrost was not an authorized proposition by myself. The problems and details were worked out by Mr. Hulse and Mr. Postlewaite, my engineer at the Portland office. [1374]

(Testimony of Niel Dahl)

By Mr. Lewis Lyon:

Q. At that time Electrical Products Corporation was acting as a representative of what concern?

A. Carrier Corporation.

Q. And was any report ever made to the Carrier Corporation of this experiment? A. There was not.

Q. Was the experiment ever repeated by Electrical Products Corporation to your knowledge?

A. It was not.

Q. Was the experiment abandoned by Electrical Products Corporation or not?

Mr. Neave: I object to the characterization that it was an experiment, your Honor.

Mr. Lewis Lyon: The witness so referred to it, your Honor.

The Court: According to your brief, that is what I have to decide.

Mr. Lewis Lyon: That is right. I am using the witness' word—I will change the form of the question.

Q. Was any attempt ever made by Electrical Products Corporation, to your knowledge, to produce any other water defrost system? A. Not to my knowledge.

Q. You would have known it if it had been done, would [1375] you not, while you were there?

A. Within the Electrical Products organization covering some several states; yes.

The Court: Was the idea of using water to defrost abandoned?

The Witness: Very definitely in this respect, that it was never accepted.

There are two methods that were approved, both by the Carrier Corporation and the other offices that were

(Testimony of Niel Dahl)

schooled in by myself, and according to the Carrier manual, and that was either hot gas defrosting or warm air defrosting. We had never considered up to the advent of this actual installation—I had never considered, I should say—the use of water.

By Mr. Lewis Lyon:

Q. How long at that time had you been in the refrigeration business? A. Since 1927.

Q. Do you recall that the unit that was installed in the Yamhill plant was a 15 Q-2 floor model cold diffuser of the Carrier Corporation? A. It was.

Mr. Neave: Objected to as leading and suggestive.

The Court: Overruled.

The Witness: It was a 15 Q-2 model. [1376]

By Mr. Lewis Lyon:

Q. What were the recommendations of the Carrier Corporation as to the use of that type of cold diffuser?

A. 15 Q models of the various sizes were not recommended for below freezing installations.

Q. Do you know, Mr. Dahl, why that 15 Q-2 cold diffuser was placed outside of the locker room?

A. Yes, for very definite engineering reasons.

Q. What were they?

A. Standard procedure in those similar installations was the usage of hot gas defrosting. Hot gas defrosting was an answer but it was not perfect. One of the big problems was the incomplete defrosting of a deep coil.

The time element in defrosting using the reverse cycle—

The Court: That is, hot gas?

The Witness: Hot gas, in which you pump the heat into the coil instead of taking it out, is such that the water drips very slowly from the coil as it defrosts.

(Testimony of Niel Dahl)

Now water as it drips over heavy frost tends to form glazed ice. Glazed ice in itself, or hard ice, is an insulator. It melts quite slowly.

The water dripping down from the bottom of the coil, that is, the melted frost dripping down from the bottom of the coil, would tend to build up icicles and blocks of ice between the fins. If it came in contact with air below freezing [1377] at any time, just like icicles are formed at the edge or eaves of a roof during a thaw or just after a thaw, therefore to make hot gases satisfactory as possible with all its other drawbacks, our standard procedure in many cases where physically possible was to locate the unit within a warmer space, and that is what was not only done on this job but was submitted on other proposals by various offices at various times.

By Mr. Lewis Lyon:

Q. Did you ever have any conversation, Mr. Dahl, with Mr. W. C. Hulse about testifying in this case?

A. Pertaining to this case but not—yes, as to testifying.

Q. Where did that conversation take place?

A. In San Francisco. That is on the telephone. I was in San Francisco, he was in Los Angeles.

Q. Did Mr. Hulse call you or did you call him?

A. Mr. Hulse called me.

Q. When was that, do you recall?

A. I would judge that it was in August of 1945.

Q. Can you tell me what was said by Mr. Hulse and yourself at that time?

Mr. Neave: Your Honor, I object on two grounds, the ground which I have previously raised, which I assume your Honor will rule upon in the same way, and

(Testimony of Niel Dahl)

upon the second [1378] ground that, as I understand it, in order to impeach a witness you have to put the question on cross examination as to whether or not he had had a conversation and what was said at that time if you are going to impeach him in that manner.

Now that foundation was laid with respect to Mr. Wilde and with respect to I believe Mr. Jarvis, but not this witness.

The Court: I thought he laid it here, whether or not he had a conversation, and he stated he had a conversation with Hulse in August 1945, when he called him on the telephone.

Mr. Neave: I do not recall that, your Honor.

The Court: He stated that just now.

Mr. Neave: Yes, he did so testify, but what I am saying—

The Court: You mean he asked Mr. Hulse on the witness stand whether or not in August 1945 whether he did?

Mr. Lewis Lyon: Pardon me, your Honor, for interrupting. This is not for the purpose of impeachment.

The Court: You asked Hulse whether he had the conversation?

Mr. Lewis Lyon: I asked him whether or not he knew this man. That is as far as I went. It was not for impeachment.

The Court: This is rebuttal.

Mr. Lewis Lyon: This is rebuttal and for the purpose of showing bias and interest and other factors.

The Court: Objection overruled.

By the way, the court room is 53 feet long, 40 feet wide, [1379] 25 feet and 5 inches high.

(Testimony of Niel Dahl)

Mr. Lewis Lyon: Thank you, your Honor.

The Court: Read the question.

(The question referred to was read by the reporter, as follows:

“Q. Can you tell me what was said by Mr. Hulse and yourself at that time?”)

The Witness: I can give you the gist of the conversation. Being long-distance, I was quite surprised. He asked me whether or not I could obtain some leave. [1380]

By Mr. Lewis Lyon:

Q. You were in the service at that time?

A. I was in the service. I was in the Navy at that time and on duty when he called me.

I asked him what it was about. He said, “Well, I have something very interesting.”

I said, “Wally, it would be difficult for me to get away.”

“Now could we see you tomorrow if we came up there?”

I told him, “Yes, I would be glad to see him.”

We made a date—I believe it was for the next day—to have lunch together. He said he was bringing another gentleman with him, and that was the gist of the conversation.

Q. Did you meet him at lunch, he and this other gentleman at lunch, the next day as planned? A. I did.

Q. Where?

A. I met them in—they came to the Ferry Building in San Francisco, my office, and we had lunch in a nearby restaurant.

Q. Who was this other gentleman?

A. Mr. White.

(Testimony of Niel Dahl)

Q. Sitting here at the table?

A. The gentleman there; yes, sir.

Q. Will you state the conversation that was had between you and Mr. White and Mr. Hulse at that time, or state if at all times all parties were present at that conversation too.

A. Well, the usual round of general conversation enjoyed over the early part of luncheon. Later on Mr. Hulse kept asking me rather pertinent questions about various things that I could not connect. He had not yet told me the purpose of his visit. He had introduced me to Mr. White as I believe, an attorney representing the York Corporation.

I didn't answer many of the questions—

The Court: What were you discussing? What did he say, in substance?

The Witness: Whether I knew and read about the water defrosting system of Trullinger & Eustice at Yamhill.

Not knowing why he had come previously, then I asked him directly what the purpose of the visit was, what he was attempting to do.

He admitted that they were interested in using that in an attempt to break down the patents of the Recold Company.

I told him at that time—I believe Mr. White was there at the table—that I was not particularly interested in being involved in any attempt to break down the patents of any company. I told him I didn't know what his interests were. He was representing Vilter at the time, and I knew that, but that I was not interested in any such action. [1382]

(Testimony of Niel Dahl)

Q. Did you have any further conversation with Mr. Hulse alone at that time?

A. Yes, we went into the washroom together—

The Court: Watercloset they call it here in patent cases.

The Witness: The watercloset then.

Mr. White: May I have the last question read?

(The question referred to was read by the reporter, as follows:

“Q. Did you have any further conversation with Mr. Hulse alone at that time?”)

By Mr. Lewis Lyon:

Q. Will you state what that conversation was.

A. The conversation mainly was on my part. Mr. Hulse is an old and a personal friend of mine. I asked him why he was so interested. He indicated that it meant considerable to him. I took at that time that it meant for possibly his company.

The Court: Did you say so?

The Witness: No, I don't believe so but I do recall having personally warned him that I did not feel that any action on his part in any such attempt would be considered good business if he intended to stay in the refrigeration game on the West Coast. [1383]

By Mr. Lewis Lyon:

Q. Was any indication made or any offer made to you at that time for recompense if you would testify for Mr. Hulse in this matter?

A. The only absolute indication was that on the telephone call, in that conversation he asked me if I wanted to make a trip to Los Angeles with my expenses paid.

(Testimony of Niel Dahl)

The general conversation was that it would be worth my while. I told him no, that I would not get leave, and that is when he suggested that they come to San Francisco.

Q. What did you understand Mr. Hulse's statement to mean that it would be "worth your while?"

Mr. Neave: Your Honor, I don't think that is a proper question.

The Court: Objection sustained.

Mr. Lewis Lyon: That is all.

The Court: Cross examine.

By the way, did you ever have any correspondence with your Portland office about the Yamhill installation, do you remember?

The Witness: No, your Honor, I can't remember directly. I had much correspondence with them, but to save time we usually made a lot of telephone calls, and I was there periodically.

The Court: Did you ever have any correspondence with [1384] the Carrier Corporation about that installation?

The Witness: Not to my knowledge.

The Court: Do you know whether or not your company ever got paid in full for the job?

The Witness: I cannot say definitely, but I would presume that possibly they did.

The Court: Go ahead.

Cross Examination

By Mr. Neave:

Q. Mr. Dahl, you said that you became acquainted with the Trullinger & Eustice job at the time that water

(Testimony of Niel Dahl)

defrosting was there. Now what was the date when you first saw that job with water defrosting?

A. I cannot fix that exactly.

Q. What year was it?

A. I would say it was possibly in the early part of 1937.

Q. You never saw it before then?

A. The installation?

Q. Yes. A. No.

Q. When did you get back from your trip to Montana? A. I made several trips.

Q. When did you get back from the trip to Montana after which you went to this job? [1385]

A. Well, I can't indicate that exactly.

Q. When you made this first trip in 1937 to this job, who was with you? A. Mr. Hulse. [1386]

Q. What did you do when you went there?

A. My primary purpose—

Q. I didn't ask you what the purpose was. I asked you what you did.

A. Well, I was introduced to various people and took a quick look at the job.

Q. Did you look at the outside of the freezer unit?

A. Yes.

Q. And that freezer unit was enclosed in an insulated enclosure, was it not? A. At that time, yes.

Q. Did you operate the defrosting mechanism?

A. No.

Q. When was the next time that you went to that job? A. I did not go again, that I recall.

Q. That is the only time that you went there?

A. I believe that is the only time that I was there.

(Testimony of Niel Dahl)

Q. You mentioned that there was trouble with the coil, and that it did not defrost all the way down?

A. That is correct.

Q. You never saw that yourself, did you?

A. No.

Q. You said "No"?

A. That is correct. The answer is "No."

Q. So that was something somebody else told you, was it [1387] not?

A. Those were according to the reports given me during discussions with my personnel, pertaining to the problems of the job.

The Court: Mr. Hulse?

The Witness: Mr. Hulse, Mr. Postlewaite, and several mechanics; two in particular that were involved at various times.

Q. By Mr. Neave: They were pretty familiar with the job?

A. Quite.

Q. They installed it? They were there while it was being built?

A. That's right.

Q. They serviced it?

A. That is correct.

Q. Do you know whether any condenser unit was replaced on that machine?

A. Yes, to my recollection, that one condenser was frozen up.

Q. Do you know whether any more than one condenser was replaced in that machine?

A. I do not.

Q. How much do those condensers cost?

A. Oh, possibly \$100.00. Whether it was replaced or [1388] rebuilt, I cannot say.

(Testimony of Niel Dahl)

Q. Now, you left the Refrigeration Engineering Company in September, 1937?

A. That is correct. The what company? The Electrical Products Corporation.

Q. I beg your pardon. The Electrical Products Company? A. That is correct.

Q. Did you have any contact with this Yamhill job after you left the company? A. I had not.

Q. You spoke of a conversation which you had had with Mr. Hulse and Mr. White. In San Francisco, was it? A. That is correct.

Q. And just where was that?

A. It was in a restaurant in approximately the 400 block on California Street.

Q. Was that in August, 1945?

A. I would say roughly August, some place around there.

Q. You don't remember the exact date?

A. I do not remember the exact date.

Q. The exact day of the month?

A. No, I was too busy with the war.

Q. Now, this conversation that you had with Mr. Hulse in the washroom, was that at the lunch place?

A. That is correct. [1389]

Q. Where did you leave Mr. Hulse and Mr. White?

A. Well, I believe we—if I remember correctly, we drove up in Mr. White's car or Mr. Hulse's, I have forgotten which, and they returned me to my office, if I remember correctly.

Q. You all three left the washroom together?

A. That is correct, we all three left the restaurant together.

(Testimony of Niel Dahl)

Q. The restaurant together. Isn't it a fact that you told Mr. Hulse and Mr. White that, to the best of your knowledge, this installation operated satisfactorily?

A. That is not correct.

Q. You deny that? A. I deny that.

Q. Why did you leave the Electrical Products Company?

A. Why?

Q. Yes.

A. We decided to liquidate the business.

Q. Why? Why did you do that?

A. Many reasons.

Q. Was it because it wasn't profitable?

A. Primarily it was not profitable; had operated for 18 months at a loss.

Q. Did you appear here under a subpoena?

A. I did not. [1390]

Q. Have you any interest in the defendant company?

A. I have not.

Q. Are you in the refrigeration business now?

A. I am not.

Q. What is your present business?

A. I have no business. I am attempting to build a home at the present time.

The Court: You were in service as an officer in the Navy?

The Witness: Yes, sir.

The Court: Were you assigned to the type of work that had to do with the installation of refrigerating apparatus, or the like?

The Witness: Yes. Refrigeration is a small, a very small portion of naval machinery. I was in the planning

(Testimony of Niel Dahl)

section of various naval yards and establishments as machinery planning officer.

The Court: Machinery planning officer.

Mr. Neave: I am having a hard time hearing the witness, your Honor.

The Court: He said he was a machinery planning officer in various naval yards and establishments and that refrigeration was a small portion of that business.

Q. By Mr. Neave: Did I understand you correctly when you said that you left the business in September, 1937, that was because the whole company liquidated at that time, and not [1391] merely the Portland office? Is that correct? A. That is correct.

Mr. Neave: That is all.

Mr. Lewis Lyon: That is all.

The Court: That is all. The witness may be excused. The next witness.

H. T. JARVIS,

recalled as a witness by and on behalf of the defendant, having been previously duly sworn, testified further as follows:

Direct Examination

The Court: What was Exhibit 107?

Mr. Charles Lyon: Five pages showing refrigerating capacities of York—

Mr. Neave: It was in for identification only. Your Honor exclude it.

The Court: Oh, yes, I remember what it was now.

(Testimony of H. T. Jarvis)

By Mr. Lewis Lyon:

Q. You have testified before in this case, haven't you, Mr. Jarvis? A. I have, sir.

The Court: That was marked for identification only. Did you take it?

Mr. Neave: No. Oh, yes, I did. It is being photostated, your Honor.

The Court: Oh, very well. [1392]

Mr. Neave: I forgot that.

Q. By Mr. Lewis Lyon: During the time of introduction, Mr. Jarvis, of the Recold water defrost system, did Refrigeration Engineering do any advertising?

A. We did what could be termed advertising by printing of the engineering catalogue.

Q. Any other advertising?

A. Yes, we printed a few envelope stuffers. That is all the advertising we did.

Q. Did you advertise in any periodicals?

A. Not at that time, no, sir.

Q. Does that include the years 1938, 1939 and 1940?

A. It does.

Q. Your entire advertising consisted in printing an engineering catalogue and printing a few leaflets; is that correct? A. That is correct.

Q. What was the cost of these leaflets?

A. Well, I would judge that the leaflets themselves cost not over \$200.00.

Q. What was the cost of the catalogue?

A. To give you the exact figure I would have to refer to the compilation of our advertising figures for those years that I gave you, Mr. Lyon, but I would say that that cost doesn't run over \$2,000.00. [1393]

(Testimony of H. T. Jarvis)

Q. Now, did you for the years 1939, 1940 and 1941 continue to print advance pages for that catalogue?

A. We printed a new catalogue every year.

Q. A new catalogue every year? A. Yes.

Q. You have stated that you gave me a compilation of advertising figures. I hand you a letter of such a statement. What is that?

The Court: What is the materiality of this?

Mr. Lewis Lyon: The materiality of this is to show the commercial success of this was not due to advertising.

The Court: All right.

The Clerk: That is FF.

The Court: All right, FF.

(The document referred to was marked as Defendant's Exhibit FF, for identification.)

The Witness: A. These are the figures that I turned over to you, Mr. Lyon.

Q. By Mr. Lewis Lyon: And those figures show the total advertising expenditures made for the years 1938, 1939 and 1940? A. And 1941.

Q. And 1941. What were they?

A. In 1938 the total advertising was \$4,461.68. In 1939 it was \$4,050.27. In 1940, \$3,958.41. In 1941, [1394] \$2,082.17.

Q. Does that include advertising all of the products of Refrigeration Engineering?

A. Yes, sir, it includes the advertising of all of our coils.

Q. Whether water defrost or not?

A. That is correct.

(Testimony of H. T. Jarvis)

Q. How many patents does the Refrigeration Engineering Company own or control, Mr. Jarvis?

A. Just this one, thank goodness.

Mr. Neave: I am sorry, I didn't hear that answer.

The Court: He said, "Thank goodness, just this one."

Q. By Mr. Lewis Lyon: What was the financial position of Refrigeration Engineering in 1938?

A. We showed a financial net worth of \$57,377.36.

Q. What were the total sales of the company at that time? A. About 200,000.

Q. What is the financial position of Refrigeration Engineering at the present time?

A. The net worth is about \$250,000.

Q. What are the annual sales at the present time?

A. Last year a little over \$1,000,000.

Q. What proportion of that business is water defrost coils? [1395]

A. About 40 per cent would be my best estimate.

Q. You are acquainted, are you not, with Mr. W. C. Hulse? A. I am.

Q. Did you ever at any time see Mr. Hulse at the Weidlein Company? A. I did.

Q. On South Los Angeles Street in Los Angeles?

A. Yes, sir.

Q. When was that?

A. Either late 1939 or early '40.

Q. Who was present?

A. Mr. Carl Wilde sitting there was one of the gentlemen there, and Mr. Lee Weidlein, Mr. Jake Weidlein and Mr. R. W. Weidlein, the owner of the company, and a number of other salesmen whose names I don't recall for the moment.

(Testimony of H. T. Jarvis)

Q. Where did that conversation take place?

A. In Mr. Weidlein's office.

Q. Were you endeavoring to demonstrate any structure at that time, Mr. Jarvis?

A. Prior to any conversation between Mr. Weidlein and Mr. Hulse and myself, I had demonstrated our water defrost coil for the second time to the R. W. Weidlein group.

Q. Following this demonstration you had a conversation with Mr. Hulse, did you? [1396]

A. And Mr. Weidlein.

Q. Will you state what was said at that conversation?

A. At the conclusion of my talk to the salesmen, Mr. Weidlein called me into his—

Mr. Neave: Excuse me. May I make my usual objection to this line of testimony, your Honor, that if it is for any purpose other than impeaching a witness I object to it as hearsay,—other than impeaching Mr. Hulse, I object to it as hearsay.

The Court: I don't know what other thing it would be offered for, because the impeaching question was asked of Mr. Hulse and I take it this is impeachment of Mr. Hulse on that question.

Mr. Lewis Lyon: That is correct.

The Court: All right.

Mr. Neave: That is the only purpose.

The Court: It is limited then to impeachment.

The Witness: Would you give me the question again?
(The question referred to was read.)

The Witness: Mr. Weidlein called me into his office, and with Mr. Weidlein in his office was Mr. Hulse, and he said, "You know Wally here, don't you?" And I had

(Testimony of H. T. Jarvis)

met him, I believe, on a couple or maybe three different occasions prior to that, and I said, "Yes." He said, "Wally doesn't particularly like your water defrost coils." I said, "What is [1397] the trouble, Wally?" And he said, "Well, the trouble is that I have had experience with them and they just don't work." It is very difficult to give a word for word—in fact, it is impossible.

The Court: Well, give it in substance.

The Witness: Well, in substance—

The Court: Nobody is expected to remember every time they—I mean, everything said. I am picking up Mr. Trullinger's habit. [1398]

By Mr. Lewis Lyon:

Q. Just give the substance of the conversation as near as you can remember.

A. That was the preliminary substance. I asked him why, and he said that he had originated the water defrost idea and that if this water defrost idea caused me as much trouble as it did him, he would certainly suggest that I abandon the idea at that time.

Mr. Weidlein's rebuttal to that statement was to the effect that he had seen a job in operation and he was satisfied that they did work and that he was going to try them out.

Q. Did Mr. Hulse say anything else?

A. That is the conversation as I remember it.

The Court: Where is Weidlein now?

The Witness: Unfortunately he is dead, your Honor?

The Court: He died?

The Witness: Yes.

(Testimony of H. T. Jarvis)

By Mr. Lewis Lyon:

Q. Do you know what structure Mr. Weidlein referred to when he said that he tried it out as given in your last answer?

A. You mean Mr. Hulse and not Mr. Weidlein, don't you?

Q. No, I believe you stated that Mr. Weidlein said that he had tried it out and knew that it worked.

A. I am sorry, I meant to say that he had seen one. I [1399] had taken Mr. Weidlein to see an installation here in Los Angeles.

Q. Where, do you recall?

A. I believe it was the job down on Florence Avenue. The exact name of the job I would have to refer to the list of installations to give it to you.

Q. It was a Recold water defrost job?

A. That is right.

Mr. Lewis Lyon: That is all.

The Court: What is the biggest room that you have installed this method of refrigeration with the water defrosting in it?

The Witness: Your Honor, I believe the largest individual room that I recall is the Haslett Warehouse job.

The Court: The Payne job? The one Mr. Payne testified to?

The Witness: Yes, sir. I am not sure whether that is the largest single room or whether a job that the Army purchased during the war in San Francisco in which there is four identical rooms on four floors of a large warehouse. If my memory serves me correctly, the rooms are

(Testimony of H. T. Jarvis)

larger, but I have not seen them myself. The entire four floors were installed in accordance with the detailed installation of the Haslett job.

The Court: With water defrosting? [1400]

The Witness: Yes, sir, and the same model coils.

The Court: Have you had any kick-back or trouble with it?

The Witness: Nothing, your Honor, except to sell them coils for the installation.

The Court: I would like to ask another question: There has been sitting in the courtroom over here an apparatus. What is that?

The Witness: Do you refer to the Recold coil with the name plate on it, your Honor?

The Court: Not that thing on top, but what appears to be a unit.

The Witness: That is one of our standard water defrost low temperature coils, complete with header, fans and motors and housing and finned coil.

The Court: And pan?

The Witness: Yes, sir.

The Court: And the pan at the top and pan at the bottom?

The Witness: Yes, sir.

The Court: Do you have the capacity for that? How do you rate that?

The Witness: They are rated BTU's per hour per degree.

The Court: They are not rated per ton of refrigeration—what was it you called it? [1401]

Mr. Neave: Per ton of refrigeration.

The Court: Ton of refrigeration?

(Testimony of H. T. Jarvis)

The Witness: I believe that method of reference is a little bit outmoded, your Honor. The industry seems to be referring now to BTU's. Nobody but the old ammonia men seem to stick to the ice melting equipment, so far as I know.

The Court: What capacity do you call this?

The Witness: Without referring to the catalog at a specified temperature—in other words, it is rated on one degree, 10, 15—

The Court: How big a room would that keep refrigerated below freezing?

The Witness: For frozen food installation that coil in there will keep a room approximately 8 by 8 by 10 feet at zero degrees.

The Court: At zero degrees?

The Witness: At zero degrees or thereabouts, depending, your Honor, on the insulation.

The Court: On the insulation of the wall and the like?

The Witness: That is right. If there is six inches of insulation it will do a better job, than if there are only 4 inches.

The Court: What refrigerant does that machine use?

The Witness: That machine as it is built will handle sulphur dioxide, methyl chloride, or Freon, and the same unit [1402] is supplied with steel tubing for ammonia or brine as the refrigerant.

The Court: What is that tube in there now?

The Witness: Copper tubing.

The Court: Copper tubing?

The Witness: Yes, your Honor.

(Testimony of H. T. Jarvis)

The Court: All right. Mr. Neave, did you have some questions?

Mr. Lewis Lyon: I would like to ask one further question, if I might.

Q. Mr. Jarvis, have you any installations for freezing fish? A. Many of them.

Q. Using your water defrost?

A. Many of them.

Q. Did you install in Edmonton, Alberta, for the Menzies Fish Company, such a system in June of 1939?

A. We did not install it, no, sir, but we sold the coils that were installed in that installation.

Q. Do you know how large an installation that is?

A. I have the photographs in my office. Other than looking at the photographs, I believe the room to be about half as long as this room. I wouldn't know the exact dimensions. It is quite a large installation.

Q. Did you also have such fish installations in Honolulu, Wellington, New Zealand, and San Jose, California, and other points? A. We do.

Q. Did they operate successfully?

A. As far as I know there have never been any complaints.

Q. Do they operate on fish without wrapping?

A. That is correct.

Mr. Lewis Lyon: That is all.

The Court: What do you sell? Is that what you sell, that whole unit there?

The Witness: The complete package as you see it, with the 3-way valve, fan, motor, housing, spray pan over the top and spray pan underneath.

(Testimony of H. T. Jarvis)

The Court: That is your unit?

The Witness: That is one of the smaller units.

The Court: Do you sell any part of that without the rest of it?

The Witness: No, sir.

The Court: You sell that whole unit in different sizes?

The Witness: That is right.

The Court: All right. Any more questions?

Cross Examination

By Mr. Neave:

Q. And you do not sell the conduits between the valve [1404] and the inlet into the header?

A. We have several years ago sold the hose and hose clamps, but it was rather a clumsy proposition to supply hose for the various jobs because until the job was shipped to, say, Sacramento or San Francisco or New Zealand we had no way of knowing what length of hose was required, so we discontinued the practice of selling the connecting hose.

The Court: You mean the hose that goes on from there, such as is shown in the diagram?

The Witness: Yes, your Honor, the piece of hose that comes through the wall from the outside into the unit.

The Court: This is complete except for that?

The Witness: That is right.

By Mr. Neave:

Q. And the hose that goes out from the drain pan?

A. That is correct.

(Testimony of H. T. Jarvis)

Q. And you have discontinued that for some time?

A. Oh, the last time I recall that we sold any hose was early in the war.

The Court: Will you explain that to me? I mean, will you turn it around and show me which is which?

The Witness: Do you want me to go down there?

Mr. Charles Lyon: Shall we bring it over there?

The Court: Just put it on counsel table.

I know what the pan is now.

The Witness: You know what the fan and motor is? [1405]

The Court: Yes.

The Witness: This tube here, your Honor, leads into a simple copper shower head spray type—

The Court: Wait a minute now.

The Witness: May we open this up?

The Court: Yes.

That is the tube 16 in the patent?

The Witness: I wouldn't be sure, your Honor, without referring to the patent.

The Court: Have Mr. Lyon check that.

By way, on top, those are the angle irons by which it is attached to the ceiling?

The Witness: Yes, your Honor.

The Court: Do you want to put that in evidence?

Mr. Lewis Lyon: I would be glad to if it will do any good.

The Court: I can get whatever benefit I can get out of it right here, but I keep worrying about my brothers in the Circuit Court of Appeals.

(Testimony of H. T. Jarvis)

Mr. Lewis Lyon: That might be offered in evidence and left in the possession of myself or someone else so that it does not encumber the court.

The Court: I think you and Mr. Neave can agree as to whether it should or should not go in evidence.

Mr. Lewis Lyon: That is all I am worried about.

Mr. Charles Lyon: This doesn't belong to us. [1406]

Mr. Neave: It is entirely up to Mr. Lyon.

Mr. Lewis Lyon: I have made arrangements before with Mr. Neave that it will remain in my possession subject to your inspection at any time.

Mr. Neave: That is perfectly agreeable.

Mr. Lewis Lyon: And it could be presented to the Circuit Court of Appeals or any other court at any time at the request of either party.

Mr. Neave: That is perfectly agreeable, as long as it is exactly the same type of unit.

Mr. Lewis Lyon: It will be exactly the same unit. We will not change units.

The Court: All right.

The Witness: This is the spray header.

The Court: Is that correct, Mr. Lyon?

Mr. Lewis Lyon: Yes, your Honor.

The Witness: That is all it amounts to.

The Court: That is 16 and the pan is 14, and what are these? Are they added?

The Witness: Yes, sir. That is what I tried to explain in my first attempt here on which, on that job down on San Pedro Street, we failed to put it in originally. In other words, you can see in here, your Honor, this hanger that holds the fin section up to the top, this little tube

(Testimony of H. T. Jarvis)

with holes in it, goes on each side of there to defrost the return bends on [1407] both sides which accumulates ice although they don't accumulate them so rapidly.

The Court: All right.

Now what is the other tube coming out from there?

The Witness: This tube is the suction line, the refrigerant suction line from the coil.

The Court: That furnishes the refrigerating fluid?

The Witness: This tube here, your Honor, is where the expansion valve is mounted and from this tube is supplied the liquid refrigerant to the coil, and when that is boiled off it is drawn through this section line tube that is on top.

The Court: Back into the—

The Witness: Back to the condenser of the machine.

The Court: And where it goes through its cycle again?

The Witness: That is right.

The Court: Where is your bottom pan, 11a?

The Witness: If I turn it up here you can see the bottom. It is just an ordinary deep drip pan.

The Court: I see. Very well.

The Witness: I believe that covers it.

Mr. Lewis Lyon: Subject to the stipulation, I will offer this device in evidence as defendant's exhibit next in order.

The Clerk: Exhibit GG.

Mr. Neave: No objection.

The Court: Admitted. [1408]

(The device referred to was received in evidence and marked Defendant's Exhibit GG.) [1409]

(Testimony of H. T. Jarvis)

By Mr. Neave:

Q. Mr. Jarvis, would you please describe what it is that seems to be in this pan underneath the motor and surrounding the drain hole?

A. I would be glad to. Maybe I can remove it so you can see it.

The Court: Underneath the motor and surrounding the what?

Mr. Neave: The drain hole that is in the pan.

The Court: That is a valve, isn't it?

Mr. Neave: No, it looks like a strainer of some sort.

The Witness: This little screen is mounted up against the back of this pan directly over the drain hole for just one purpose. We had an occasion once of a piece of paper—how the piece of paper got into the drain pan the Lord only knows—but the paper got into that drain pan and when they defrosted the water overflowed and we had a very nice ice-skating rink on the floor. That is all it is for.

By Mr. Neave:

Q. Approximately what are the sizes of the openings in that screen?

A. About a quarter of an inch.

The Court: Quarter of an inch?

The Witness: A quarter of an inch—

Mr. Lewis Lyon: Wait a minute. We will measure it. [1410]

The Witness: It is closer to half an inch.

Mr. Lewis Lyon: Half an inch square.

The Court: In other words, what you mean to say is that it is a strainer or screen to catch any fouled ma-

(Testimony of H. T. Jarvis)

terial that might get into the apparatus other than ice or water.

The Witness: Well, there is no ice.

The Court: Well, if there is ice there you wouldn't have this whole law suit, would you?

The Witness: Does that answer your question?

Mr. Neave: Yes, it does. I have no other questions.

Mr. Lewis Lyon: That is all, Mr. Jarvis.

(Witness excused.)

Mr. Lewis Lyon: The defendant rests.

Mr. Neave: Mr. White, would you take the stand, please?

H. CALVIN WHITE,

called as a witness by and on behalf of the plaintiff in sur-rebuttal, having been first duly sworn, was examined and testified as follows:

The Clerk: Will you state your name?

The Witness: H. Calvin White.

The Clerk: Your address?

The Witness: 824 Richfield Building, Los Angeles.

The Clerk: Take the stand. [1411]

Direct Examination

By Mr. Neave:

Q. What is your occupation, Mr. White?

A. Patent lawyer.

Q. Are you a member of the bar of California?

A. I am.

Q. Did you hear Mr. Dahl testify in this case?

A. A portion of his testimony; yes.

(Testimony of H. Calvin White)

Q. Did you hear the portion of the testimony which he gave concerning the conversation which he had with you and Mr. Hulse in San Francisco? A. I did.

Q. Did you and Mr. Hulse have lunch with Mr. Dahl in San Francisco? A. We did.

Q. What was the date of that meeting?

A. April 14, 1945.

Q. Will you tell me what Mr. Dahl told you as to his best knowledge of the operation of the Yamhill unit?

A. My recollection is that his statement was brief and that the operation of the unit was satisfactory.

Mr. Neave: That is all.

The Court: Cross-examine?

Mr. Lewis Lyon: That is all.

The Court: Step down.

(Witness excused.) [1412]

Mr. Neave: That is all. The plaintiff rests, your Honor.

The Court: Everybody rest?

Mr. Lewis Lyon: Yes.

Mr. Neave: Yes.

The Court: Do you want to start arguing now?

Mr. Lewis Lyon: I think in the morning would be better, your Honor. The reason I got through in a hurry was to give myself a little time to prepare for it.

Mr. Neave: There is one matter that I would like to mention, if I might, your Honor.

We have not had an opportunity to go over all of the transcript as yet. One day's transcript we did not get

until the following morning, and through an error last night we didn't get yesterday's until this morning. Therefore there may be some errors in the transcript that we would like to call attention to. [1413]

The Court: You mean motions to correct the testimony?

Mr. Neave: Motions to correct the testimony. Could we do that later?

The Court: It will be taken for granted, even though both sides have rested, that you may still reserve that.

Mr. Lewis Lyon: I think there are a few slight typographical errors in the transcript that should be noted, and I think those can be agreed upon.

Mr. Neave: I think Mr. Lyon and I can agree on the changes and if we cannot agree why we can come back to your Honor.

The Court: Very well.

Mr. Lewis Lyon: That is satisfactory.

The Court: You can make a stipulation to that effect. How long do you want to argue?

Mr. Lewis Lyon: I don't anticipate requiring more than an hour, your Honor.

Mr. Neave: Your Honor's ruling has shortened my argument.

The Court: I think that it is mostly a factual situation.

Mr. Neave: Yes, I think it is.

Mr. Lewis Lyon: Factual and some legal propositions that I think we can amplify.

The Court: There are some legal questions. On your question of abandonment, by way of observation, I think you [1414] have the burden of proving to me that the Yamhill installation was an experiment.

Mr. Lewis Lyon: That is correct.

The Court: In order to give you some idea as to what is in my mind up to now, and certainly not by way of any ruling, it would look to me like there is an invention here, that is to say, this is capable of being an invention unless it was anticipated. I don't think of anything else right now that I can observe that will give you any guidance.

Mr. Lewis Lyon: I think that is very helpful, your Honor.

The Court: Very well. Recess to 10:00 o'clock.

(Whereupon, at 3:30 o'clock p. m., an adjournment was taken until 10:00 o'clock a. m., Friday, September 24, 1946.)

[Endorsed]: Filed Oct. 3, 1946. [1415].

[Endorsed]: No. 11642. United States Circuit Court of Appeals for the Ninth Circuit. Refrigeration Engineering, Inc., a corporation, Appellant, vs. York Corporation, a corporation, Appellee, and York Corporation, a corporation, Appellant, vs. Refrigeration Engineering, Inc., a corporation, Appellee. Transcript of Record. Upon Appeals From the District Court of the United States for the Southern District of California, Central Division.

Filed June 2, 1947.

PAUL P. O'BRIEN,
Clerk of the United States Circuit Court of Appeals for
the Ninth Circuit.

In the United States Circuit Court of Appeals
for the Ninth Circuit

No. 11642

YORK CORPORATION,

Plaintiff,

vs.

REFRIGERATION ENGINEERING, INC.,

Defendant.

STATEMENT OF POINTS TO BE RELIED UPON
ON APPEAL

(York Corporation)

The District Court erred:

1. In not holding that all the claims of the McAdam patent are invalid in view of the prior patents and instances of prior use and sale proved herein.

2. In not holding that plaintiff does not infringe the McAdam patent in suit because it does not make, use or sell all of the elements of the patented combination.

3. In not holding that the apparatus described and claimed in the McAdam patent is a combination of old elements; that the combination does not produce a new result; and that each of the elements performs the same function in the combination that it does apart from the combination.

4. In holding that Claim 13 of the McAdam patent defines the invention disclosed in said patent, and in not holding that the claims of the McAdam patent fail adequately to describe the structure, mode, and operation of the parts of the combination and are phrased in functional terms.

5. In denying plaintiff's motion to amend the Complaint to include the charge that defendant has been and still is misusing its patent.

6. In not holding that the Recold unit sold by defendant is an unpatented product, since it does not embody all of the elements of the combination patented by McAdam, and that defendant, by charging plaintiff with infringement of said patent when plaintiff ceased to purchase the unpatented Recold unit from defendant, is attempting to promote the sale of an unpatented article through the use of its patent, which is a misuse of said patent.

7. In holding that plaintiff has not sustained the burden of proof of establishing either prior manufacture, use, sale or knowledge of the invention of the McAdam patent in suit, and in not holding that the prior patents and instances of prior use and sale proved by plaintiff anticipated the McAdam patent.

8. In holding that it required the exercise of inventive faculty to invent the combination as defined by Claim 13 of the McAdam patent and that the combination was novel and not anticipated, and in not holding to the contrary and that the idea of using water to defrost refrigerating coils within a space maintained below the freezing point of water was old prior to McAdam.

9. In holding that the invention of the patent in suit utilized water at ordinary tap temperatures for defrosting in a manner which was believed by those skilled in the art to be impossible of performance, and in not holding that many engineers knew, prior to the McAdam invention, that water could be used for the defrosting of coils positioned within a refrigerated space maintained at

a temperature below the freezing point of water, some of such engineers being the witnesses: Barton, J. Hayes, H. Hayes, Broms, Postlewaite, Hulse, Fuller, Brandt, Kennedy, Harkins, Tominac, Gaide and Mueller.

10. In holding that the teachings of the published art prior to McAdam was that water could not be used for defrosting within a refrigerated space maintained below freezing, and in not holding that the use of water to defrost at below freezing temperatures was taught prior to McAdam in Wenzl, U. S. Patent No. 2,097,851, and Jensen and Roser, French Patent No. 800,640.

11. In not holding that it was common plumbing practice prior to 1937 to so install water pipes in a space where temperatures below freezing were to be expected that the pipes would be self-draining upon the cessation of the supply of water to said space, which was usually accomplished by means of a three-port stop-and-waste valve.

12. In holding that the device of the McAdam patent solved a problem long existent in the refrigerating art, and in not holding that prior to McAdam there were several simple, inexpensive and efficient methods for defrosting refrigerating coils in below freezing installations, including warm air, warm brine, reversed cycle gas, electricity, and brine spray, all of which methods are still being installed today.

13. In holding that upon the introduction of the device of the patent in suit it was necessary for defendant to give guarantees of satisfaction, and in not holding that said guarantees were not necessary until after the first two installations made by defendant proved unsatisfactory.

14. In not holding that such commercial success as has been enjoyed by the Recold unit cannot be attributed to the McAdam patent, since the Recold unit is not the same unit as described and claimed in the patent.

15. In holding that the use of the Gayley process did not teach the refrigeration art that water could be utilized for defrosting refrigerating coils positioned within a refrigerated space maintained at temperatures below the freezing point of water, and in not holding to the contrary, and that the Gayley process established prior use and knowledge of the alleged invention of all of the claims of the patent in suit.

16. In holding that the sale to the Polar Ice Company does not anticipate the patent in suit and does not disclose the invention thereof, and in not holding that the depositions establish the prior invention and sale of an apparatus which anticipates all the claims of said patent.

17. In holding that the equipment sold to the Polar Ice Company was discarded and abandoned and that no other like system was ever installed or used by those interested in or instrumental in its construction and attempted use, and in not holding that the water defrost system which was sold and installed at the Polar plant in Indianapolis was accepted and paid for by Polar, was satisfactory and has never been discarded nor abandoned.

18. In holding that the depositions concerning the Swift & Company installation do not establish prior

manufacture, use, sale or knowledge of the invention of the McAdam patent No. 2,219,393 in suit, and in not holding to the contrary.

19. In holding that the depositions concerning the Yamhill installation did not establish that such installation was ever made, used, or sold, or that those taking part in the said installation or use had knowledge of the invention of the McAdam patent, and in not holding to the contrary and that the use of such installation for a period of about one year anticipated the claims of said patent.

20. In not holding that this action was filed with justification in law and in fact.

Respectfully submitted,

MESERVE, MUMPER & HUGHES and
H. CALVIN WHITE

By Shirley E. Meserve

Attorneys for Plaintiff

Of Counsel:

ALEXANDER C. NEAVE of
FISH, RICHARDSON & NEAVE

20 Exchange Place, New York 5, New York

Received copy of the within Statement of Points to Be Relied Upon on Appeal (York Corporation) this 4 day of June, 1947. Lyon & Lyon, by Charles G. Lyon, Attorneys for Refrigeration Engineering, Inc., Appellant and Respondent.

[Endorsed]: Filed Jun. 6, 1947. Paul P. O'Brien, Clerk.

[Title of Circuit Court of Appeals and Cause]

STATEMENT OF POINTS TO BE RELIED UPON
ON APPEAL

(Refrigeration Engineering, Inc.)

The District Court erred:

1. In holding that any of claims 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 and 14 of the McAdam Patent No. 2,219,393 in suit were invalid as not defining the entire combination of the McAdam patent.

2. In not holding that each and all of claims 1, 2, 5, 6, 7, 8, 9, 10 and 12 of the McAdam Patent No. 2,219,393 were infringed by plaintiff-cross-defendant.

Respectfully submitted,

LYON & LYON

By Lewis E. Lyon

Attorneys for Refrigeration Engineering, Inc.,
Defendant, Cross-Complainant.

June 9, 1947.

[Endorsed]: Filed Jun. 10, 1947. Paul P. O'Brien,
Clerk.

[Title of Circuit Court of Appeals and Cause]

STIPULATED DESIGNATION OF PARTS OF
RECORD TO BE PRINTED UNDER RULE
19(6).

It Is Hereby Stipulated and Agreed by and between the parties hereto, by their attorneys, pursuant to rule 19(6) of this court, that the following parts of the record on appeal shall be printed:

- (1) Certified copy of the docket entries, up to the date of the appeal.
- (2) Amended complaint.
- (3) Answer and cross-complaint.
- (4) Answer to cross-complaint.
- (5) Opinion (Transcript of Proceedings, page 1518, lines 9-21).
- (6) Findings of fact and conclusions of law.
- (7) Judgment.
- (8) Plaintiff's notice of appeal.
- (9) Defendant's notice of appeal.
- (10) Stipulated designation of contents of record on appeal.
- (11) Order with respect to stipulated designation of contents of record on appeal.
- (12) District Court Clerk's certificate accompanying record on appeal.
- (13) Plaintiff's concise statement of points to be relied upon on appeal.

(14) Defendant's concise statement of points to be relied upon on appeal.

(15) This stipulated designation of parts of record to be printed under rule 19(6).

(16) Plaintiff's Exhibits 1-7, 11, 13-21, 23-45, Y-1 to Y-9, Y-14 to Y-20, Y-22, Y-24, Y-27, Y-28, and trial exhibits 101-114.

(17) Defendant's Exhibits A, D, H, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, BB, CC and DD. [Written]: Exhibit A to Deposition of Witness Barton. LEL SEM

Dated: May 29th, 1947.

MESERVE, MUMPER & HUGHES and
H. CALVIN WHITE

By Shirley E. Meserve

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[Endorsed]: Filed Jun. 6, 1947. Paul P. O'Brien,
Clerk.